

MOVEMENT TRACKING SYSTEM

MATERIEL FIELDING PLAN

VERSION 2.0

Prepared by:

Project Officer,  
Tactical Management Information Systems (PO TACMIS)  
ATTN: SFAE-PS-TPL  
9350 Hall Road, Suite 142  
Fort Belvoir, VA 22060

Prepared for:

Product Manager  
Movement Tracking System (PM MTS)  
ATTN: SFAE-PS-RS  
800 Lee Avenue  
Fort Lee, Virginia 23801-6145

September 2000

## Summary of Changes

### Version 2.0:

- O Replaces last iteration (Version 1.0, February 2000) of the Initial Draft Movement Tracking System Materiel Fielding Plan, providing updated program information and text revisions.
- O Updates data sources and related documentation information
- O Updates program background information.
- O Updates materiel system description information.
- O Revises contractor support information
- O Provides an update/revision of section 4 including:
  - Maintenance plan.
  - Hardware maintenance concept.
  - Maintenance Description.
  - National Stock Numbers
  - MTS hardware nomenclatures
  - Basis of Issue Plan status to date.
- O Updates Readiness Reporting Requirements
- O Updates MTS hardware component information.
- O Revises MFP Summary
- O Revises Technical Manuals Listing
- O Updates Expendable Supplies Listing

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

	PAGE
SECTION 1 - INTRODUCTION.....	1
1.1 Purpose.....	1
1.2 Data Sources and Related Documentation.....	1
1.3 Agreements.....	2
1.4 Fielding and Logistic Support Concept.....	2
1.4.1 Hardware Acquisition Strategy.....	2
1.4.2 Fielding.....	3
1.4.3 Logistic Concept.....	5
1.5 Administrative Instructions.....	5
1.5.1 Primary Point of Contact.....	5
1.5.2 Changes to the Materiel Fielding Plan.....	7
1.5.3 Fielding Evaluation.....	7
1.5.4 Special Requirements.....	7
1.5.5 Acknowledging Receipt of Materiel Fielding Plan.....	7
1.5.6 MFP Distribution.....	8
SECTION 2 - SYSTEM DESCRIPTION.....	9
2.1 Functional and Physical Configuration.....	9
2.1.1 Overall Description.....	9
2.1.2 Functional Configuration.....	10
2.1.3 Physical Configuration.....	11
2.2 Associated Equipment.....	11
2.2.1 Operational Equipment.....	11
2.2.2 Transport Equipment.....	11
2.3 Operational and Organizational Plan.....	11
2.3.1 Mission Need.....	11
2.3.2 Mission Scenario.....	12
2.3.3 Organizational Plan.....	14
2.3.4 Operational and Maintenance Parameters.....	14
2.4 Deployment Schedules.....	17
SECTION 3 - FIELDING AND LOGISTIC SUPPORT PROCEDURES.....	18
3.1 Command and Control Procedures.....	18
3.1.1 Fielding Command and Control Procedures.....	18
3.1.2 Gaining MACOM Command and Control Procedures.....	19
3.2 Logistic Assistance.....	19
3.2.1 Assistance Agencies.....	19
3.2.2 The US AMC Logistics Assistance Program.....	19
3.2.3 Other MACOM Logistic Assistance .....	20
3.3 Depot Level or Contractor Support.....	20
3.3.1 Organic Support. ....	20
3.3.2 Contractor Support.....	20
3.3.3 Interim Contractor Support.....	20
3.3.4 Contractor Logistics Support.....	20

Table of Contents (continued)

	PAGE
3.3.5 Contractor Support for Initial Fielding.....	20
3.4 Materiel Defects Correction.....	20
3.4.1 Materiel Defects.....	20
3.4.2 Equipment Improvement Recommendations.....	20
3.4.3 Logistic Support Problems.....	20
3.4.4 Exceptions to Defects Correction.....	20
3.5 Coordination.....	21
SECTION 4 - SYSTEM SUPPORT DETAILS.....	22
4.1 Maintenance Plan.....	22
4.1.1 Maintenance Reporting Requirements.....	22
4.1.2 Hardware Maintenance Procedures.....	22
4.1.3 SCX Stockage.....	24
4.1.4 Software Maintenance.....	24
4.1.5 Expendable Supplies.....	25
4.2 Warranties.....	25
4.2.1 Nomenclature.....	25
4.2.2 National Stock Number.....	25
4.2.3 Commodity Office, Address, and Telephone Number.....	25
4.2.4 Level of Warranty Claim Actions Related to the MAC.....	25
4.2.5 Warranty Duration.....	25
4.2.6 Warranty Usage and Operation Limits.....	25
4.2.7 Warranty Publication and Date.....	25
4.2.8 Extended Storage Allowances.....	25
4.2.9 Special Storage Requirements.....	25
4.2.10 Contract Numbers.....	25
4.2.11 Contractor's Federal Supply Code for Manufacturers.....	26
4.2.12 Listing of Servicing Dealers.....	26
4.2.13 Warranty Data Plate Location with Explanation of Abbreviated or Condensed Data.....	26
4.2.14 Components with Different Warranty Parameters.....	26
4.2.15 DA PAM 738-750 or DA PAM 738-751.....	26
4.2.16 Contractor Commitments, Warranties, and Representations.....	26
4.3 Support Equipment and Test, Measurement, and Diagnostic Equipment.....	27
4.3.1 Special Tools and Tool Sets.....	27
4.3.2 Common Tools and Tool Sets.....	27
4.3.3 Special TMDE.....	27
4.3.4 Test Program Sets for Special TMDE.....	27
4.3.5 Common TMDE.....	27
4.3.6 Test Program Sets for Common TMDE.....	27
4.3.7 Performance Monitoring and Maintenance Indicators.....	27
4.3.8 Special Purpose Kits.....	27
4.3.9 Other Support Equipment.....	27
4.3.10 Interim Substitute Support Equipment.....	27
4.3.11 Local Fabrication Requirements.....	27
4.4 Supply Support.....	27
4.4.1 Master Support List.....	27
4.4.2 Components of End Item List.....	28
4.4.3 Basic Issue Items List.....	28
4.4.4 Additional Authorizations List Items.....	28

Table of Contents (continued)

	PAGE
4.4.5 Float Quantities.....	28
4.4.6 Basic Sustainment Materiel.....	28
4.4.7 Plans for All Replaced and Displaced Equipment and Materiel.....	28
4.4.8 Evacuation Procedures.....	28
4.4.9 Method of Distribution.....	28
4.5 Transportation and Transportability.....	28
4.5.1 Transportability Guidance and Procedures.....	29
4.5.2 Security-in-Transit.....	29
4.6 Packaging, Handling, and Storage.....	29
4.6.1 Packaging.....	29
4.6.2 Handling.....	29
4.6.3 Storage.....	29
4.7 Technical Documentation.....	29
4.7.1 Technical Manuals.....	29
4.7.2 Supply Manuals and Bulletins.....	29
4.7.3 Camouflage Pattern Painting Requirements.....	29
4.7.4 Instruction Cards and Placards.....	30
4.7.5 Inspection, Test, and Calibration Procedures.....	30
4.7.6 End Item/Weapon System Environmental Effects . . . . .	30
4.7.7 Modification Work Orders.....	30
4.7.8 Transportability and Transportation Guidance.....	30
4.7.9 Demilitarization and Explosive Ordnance Disposal.....	30
4.8 Facilities.....	30
4.8.1 Mobile and Fixed Facilities.....	30
4.8.2 Environmental Controls.....	31
4.8.3 Site Activation and Preparation.....	31
4.8.4 Ammunition Storage.....	31
4.9 Manpower and Personnel Requirements.....	31
4.9.1 Manpower and Personnel.....	31
4.9.2 Training.....	33
4.10 Training Equipment, Devices, and Aids.....	38
4.10.1 Training Materials.....	38
4.10.2 Training Aids.....	38
4.10.3 Training Data.....	38
4.10.4 Training Devices.....	38
4.10.5 Training Equipment.....	38
4.11 Computer Resources Support.....	38
4.11.1 Computer Support.....	38
4.11.2 Special Tools and Tool Sets.....	39
4.11.3 Special Tools and Tool Sets.....	39
SECTION 5 READINESS REPORTING REQUIREMENTS.....	40
5.1 Reporting Requirements.....	40
5.2 Readiness Reporting Data.....	40
5.2.1 Pacing Item.....	40
5.2.2 AR 220-1 or AR 700-138 Reportable.....	40
5.2.3 Equipment Readiness Code.....	40

Table of Contents (continued)

	PAGE
SECTION 6 SAMPLE DATA COLLECTION.....	41
6.1 Data Collection.....	41
SECTION 7 SUPPORT REQUIRED FROM THE GAINING MACOM(s).....	42
7.1 Macom Support.....	42
SECTION 8 SUMMARY.....	43
8.1 Objective.....	43
8.2 System and Logistics Support Summary.....	43
8.2.1 System Summary.....	43
8.2.2 Logistics Support Summary.....	43
8.2.3 Life Cycle Support.....	44
SECTION 9 APPENDICES.....	45
APPENDIX 9.1 AGREEMENTS.....	9.1-1
APPENDIX 9.2 KEY CORRESPONDENCE.....	9.2-1
APPENDIX 9.3 ASSOCIATED PLANS.....	9.3-1
APPENDIX 9.4 GAINING COMMAND FIELDING EVALUATION.....	9.4-1
APPENDIX 9.5 WARRANTIES.....	9.5-1
APPENDIX 9.6 FIELDING SEQUENCE OF EVENTS.....	9.6-1
APPENDIX 9.7 COMPONENTS OF END ITEMS LIST.....	9.7-1
APPENDIX 9.8 BASIC ISSUE ITEM LIST.....	9.8-1
APPENDIX 9.9 ADDITIONAL AUTHORIZATIONS LIST.....	9.9-1
APPENDIX 9.10 TRANSPORTABILITY ANALYSIS AND APPROVAL.....	9.10-1
APPENDIX 9.11 TECHNICAL MANUALS.....	9.11-1
APPENDIX 9.12 RELATED MATERIEL FIELDING PLANS.....	9.12-1
APPENDIX 9.13 SAMPLE DATA COLLECTION CONCEPT PAPER .....	9.13-1
APPENDIX 9.14 CONTRACTOR SUPPORT PLAN.....	9.14-1
APPENDIX 9.15 MTS TRAINING COURSES.....	9.15-1
APPENDIX 9.16 EXPENDABLE SUPPLIES.....	9.16-1
APPENDIX 9.17 SOFTWARE BASELINE.....	9.17-1
APPENDIX 9.18 CLASSIFIED INFORMATION.....	9.18-1
APPENDIX 9.19 ACRONYMS.....	9.19-1

Table of Contents (continued)

	PAGE
APPENDIX 9.20 MAINTENANCE CONTINGENCY OPERATIONS.....	9.20-1
APPENDIX 9.21 FIELDING SCHEDULE.....	9.21-1

LIST OF TABLES

TABLES	PAGE
4.9-1 BOIP Status.....	31
4.9-2 Enlisted Personnel Skill Requirements (MTS).....	32
4.9-3 Commissioned Officer Personnel Skill Requirements (MTS).....	33
4.9-4 Warrant Officer Personnel Skill Requirements (MTS).....	33
9.6-1 Fielding Sequence of Events (Preparation Phase).....	9.6-2
9.6-2 Fielding Sequence of Events (Execution Phase).....	9.6-2
9.6-3 Fielding Sequence of Events (Post-Extension Phase).....	9.6-3
9.7-1 COMPUTER SET, DIGITAL: AN/UYQ-90 (V)3 (MTS CONTROL STATION CONFIG) Hardware Configuration Components of End Item Listing.....	9.7-2
9.7-2 COMPUTER SET, DIGITAL: AN/UYQ-90 (V)2 (MTS MOBILE UNIT, VEHICLE MOUNTED CONFIG) Hardware Configuration Components of End Item Listing.....	9.7-2
9.8-1 COMPUTER SET, DIGITAL: AN/UYQ-90 (V)3 (MTS CONTROL STATION CONFIG) Hardware Configuration Basic Issue Items.....	9.8-2
9.8-2 COMPUTER SET, DIGITAL: AN/UYQ-90 (V)2 (MTS MOBILE UNIT CONFIG, VEHICLE MOUNTED) Hardware Configuration Basic Issue Items.....	9.8-2
9.9-1 COMPUTER SET, DIGITAL: AN/UYQ-90 (V)1 (MTS MOBILE HANDHELD UNIT CONFIG) Hardware Configuration Additional Authorized Item List....	9.9-2
9.11-1 MTS Technical Manuals.....	9.11-2
9.15-1 MTS Training Courses.....	9.15-2
9.16-1 Expendable Supplies.....	9.16-2
9.17-1 COMPUTER SET, DIGITAL: AN/UYQ (V)3 (MTS CONTROL STATION CONFIG); COMPUTER SET, DIGITAL: AN/UYQ (V)2 (MTS MOBILE UNIT CONFIG, VEHICLE MOUNTED); and COMPUTER SET, DIGITAL: AN/UYQ-90 (MTS MOBILE HAND HELD UNIT CONFIG) Software.....	9.17-2
9.21-1 Fielding Schedule.....	9.21-2

ENCLOSURES

	PAGE
Enclosure 9.1-1 Sample Materiel Fielding Agreement.....	9.1-3
Enclosure 9.1-2 Sample Memorandum of Agreement.....	9.1-6
Enclosure 9.4-1 Gaining Command Fielding Evaluation.....	9.4-3

SECTION 1  
INTRODUCTION

1.1 Purpose

a. This Materiel Fielding Plan (MFP) contains the plans, procedures, and instructions necessary to deploy, maintain, and support the Movement Tracking System (MTS). This MFP provides information and guidance to gaining Major Army Commands (MACOMs) and Army elements responsible for system planning and support before, during, and after MTS deployment to the field.

b. This MFP fulfills the guidance described in Army Regulation (AR) 700-142, Material Release, Fielding, and Transfer, dated 1 May 1995, and Department of the Army (DA) Pamphlet (PAM) 700-142, Instructions for Materiel Release, Fielding, and Transfer, dated 10 November 1999.

c. MFP updates will be provided as required by Project Officer (PO) Tactical Management Information Systems (TACMIS) over the life of the MTS program.

d. The information contained in this MFP is the latest available, and pertains to Centrally Procured Commercial-off-the-shelf (COTS) non-developmental item (NDI) Automatic Data Processing Equipment (ADPE).

1.2 Data Sources and Related Documentation

a. Movement Tracking System Supportability Strategy, Version 6.2, dated August 2000

b. Mission Needs Statement (MNS) for the Movement Tracking System (MTS), dated 12 October 1994

c. Movement Tracking System (MTS) Operational Requirements Document (ORD), dated 14 September 1998

d. Movement Tracking System (MTS) Test and Evaluation Master Plan (TEMP), dated March 2000

e. Department of the Army, United States Army Analysis Center (CSTE-EAC-AV/CS (70)) Memorandum, subject: OPTEC Independent Evaluation of the Palletized Loading System-Enhanced (PLS-E) Program, dated 08 January 1999

f. System Training Plan (STRAP) for the Movement Tracking System (MTS), Version 2.0, dated January 2000

g. Movement Tracking System (MTS) Acquisition Strategy, dated December 1999

h. Department of the Army, Office of the Assistant Secretary Research Development and Acquisition (SARD-ZBA) Memorandum, subject: Acquisition Decision Memorandum (ADM) for Systems Presented to the Warfighting Rapid Acquisition Program (WRAP) Council, dated 21 January 1997

i. Draft Movement Tracking System (MTS) System Manpower Integration (MANPRINT) Management Plan (SMMP), dated January 2000

### 1.3 Agreements

a. A separate Materiel Fielding Agreement (MFA) is coordinated with each gaining Major Army Command (MACOM) as part of the initial fielding with that MACOM.

b. The MFA documents the formalized plans, policies, responsibilities, procedures, and schedules governing the fielding of MTS to each respective MACOM.

c. An MFA will be finalized with each of the commands listed in paragraph 1.4.2.1 below. A sample copy of a MFA is contained in Appendix 9.1 - Agreements of this MFP. The MTS MFP will become final for a specific MACOM when the MFA is signed and finalized.

### 1.4 Fielding and Logistic Support Concept

#### 1.4.1 Hardware Acquisition Strategy.

##### 1.4.1.1 Background

a. Currently there is no one single or "standardized" system existing in the Army's inventory that provides the capabilities of MTS. Present-day Army transportation systems lack in-transit visibility. Once transportation assets or tactical wheeled vehicles (TWV) leave a loading area, there is no efficient means of communication between vehicle operation centers and vehicle operators. This deficiency is amplified by the fact that the Force XXI battlefield now requires support assets to travel greater distances in order to accomplish their missions. These distances far exceed current line-of-sight radio ranges. Movement control must rely on checkpoints to inform vehicle operators of any route or destination changes, or location of identified threats. This method of control does not effectively support units on the Force XXI battlefield. The use of MTS will provide the capability to resolve current transportation asset/TWV tracking and communication shortfalls.

b. The MTS concept utilizes a satellite based tracking/communication system that incorporates global positioning system (GPS), automatic identification technology (AIT), non line-of-site communication, and mapping technologies into a package that provides vehicle and watercraft visibility throughout the world.

c. The use of MTS will play a vital role in future battlefield distribution operations by providing the logistical and maneuver commander capabilities such as:

- (1) All weather critical positive control of transportation assets;
- (2) Communication with U.S., and if required, foreign national operators of transportation assets and TWVs;
- (3) Force protection;
- (4) Rapid crises response and;
- (5) The ability to track and shift critical assets to support battlefield requirements.

1.4.1.2 Hardware. MTS consists of three distinct functional configurations: the Control Station (normally used in a fixed site) referred to as (V)3, Mobile Unit, vehicle mounted referred to as (V)2, and Mobile Unit, hand held

referred to as (V)1. To meet Army operational requirements and to take full advantage of the best technology available, MTS development is staged in two blocks. These are: Block I, Initial Operational Capability (IOC) (or Threshold MTS) and Block II, Final Operational Capability (FOC) or Objective MTS.

(1) Block I

(a) An MTS "prototype", developed and integrated by ARINC Inc. as a part the "early-on" Threshold system, was approved as a Warfighting Rapid Acquisition Program (WRAP) candidate and underwent limited procurement and subsequent operational testing at the National Training Center, Fort Irwin California during Task Force XXI. The WRAP funded limited procurement was a part of an initiative in support of the Army's Palletized Load System-Enhancement (PLS-E) program, a key distribution platform in Transportation, Field Artillery, and Ordnance units. Four hundred and thirty-two (432) of the ARINC MTS systems were authorized for procurement. These "prototype" MTS systems were fielded to various Ammo platoon and truck companies at Fort Hood, Texas; Fort Carson, Colorado; and Fort Sill, Oklahoma as a part of the PLS-E program. The ARINC MTS systems will be replaced with COMTECH Mobile Datacom Corporation's MTS as development and fielding of the Threshold system continues.

(b) MTS equipment procured and fielded with WRAP funding was to be replaced after awarding of a competitive MTS contract. A U.S. Army contract was awarded in June 1999 to COMTECH Mobile Datacom Corporation for delivery of mobile terminals, computers and peripherals, and communication systems and services in support of the MTS program. COMTECH Mobile Datacom Corporation, a Germantown, Maryland based company, is engaged in the provision of satellite-based packet data communication systems and services for the land transportation, remote sensing, utility and aviation markets. COMTECH Mobile Datacom's MTS has been developed under the U.S. Army Training and Doctrine Command (TRADOC) Concept Experimentation Program, and in partnership with the U.S. Army Combined Arms Support Command (CASCOC), Defense Advanced Research Projects Agency (DARPA) (formerly ARPA), and private industry.

(2) Block II

(a) Block II requirements will be satisfied by single or multiple follow-on fielding(s) of the Objective system to meet FOC. The Objective system will deliver enhanced information flows and evolving capabilities and add additional functionality and interfaces to complete the system.

(b) Migration to the Objective system will occur as the Threshold MTS system hardware and software is further tested and defined. The use of the term MTS in this plan refers to the Threshold COMTECH Mobile Datacom Corporation MTS and related components unless otherwise specified.

1.4.1.3 Software. MTS will utilize open system architecture using a Windows operating system and map information mapping software. Communications specific software is proprietary but can use industry standard X.400 format. Currently, all system software exists and is not dependent upon evolving technology. The open system lends itself to future integration.

1.4.2 Fielding. The MTS fielding schedule is contained in Appendix 9.21 - Fielding Schedule.

1.4.2.1 Gaining Commands. Gaining MACOMs perform the necessary advance planning and programming for receipt of new modified/upgraded, or displaced systems to include programming at the gaining installations for new or modified facilities, if required, to meet the facility requirements identified by PM MTS. The following MACOMs and Agencies will receive the MTS:

- a. United States (U.S.) Army Materiel Command (AMC)
- b. U.S. Army Forces Command (FORSCOM)
- c. U.S. Army Training and Doctrine Command (TRADOC)
- d. U.S. Army Special Operations Command (USASOC)
- e. U.S. Army Intelligence and Security Command (INSCOM)
- f. U.S. Army Information Systems Command (USAISC)
- g. U.S. Army, Europe (USAREUR)
- h. U.S. European Command (USEUCOM)
- i. U.S. Army, Pacific (USARPAC)
- j. U.S. Army, South (USARSO)
- k. Eighth U.S. Army (EUSA)
- l. National Guard Bureau (NGB)
- m. U.S. Army Reserve Command (USARC)
- n. U.S. Army Medical Command (MEDCOM)
- o. U.S. Army Central Command (CENTCOM)
- p. U.S. Military Academy, West Point (USMA)
- q. Military District of Washington (MDW)
- r. U.S. Space Command (USSC)
- s. U.S. Strategic Command (USSTRATCOM)

1.4.2.1.1 Distribution Methodology. Unit distribution priorities are developed and approved by the DA Deputy Chief of Staff, Operations (DCSOPS) in coordination with DA Deputy Chief of Staff, Logistics (DCSLOG) and the MACOMs, and published in the Department of the Army Master Priority List (DAMPL).

a. The U.S. Army Training and Doctrine Command (TRADOC) is the Combat Developer (CBTDEV) and user representative. The CBTDEV provides the necessary Basis of Issue (BOI) and personnel requirements information to PO TACMIS, who coordinates, compiles, and facilitates the Total Asset Visibility (TAV) BOIP Feeder Data (BOIPFD) and Qualitative and Quantitative Personnel Requirements Information (QQPRI).

b. The TACMIS Systems Extension and Acceptance Team (SEAT) in coordination with PMO MTS, integrates the validated priorities with vendor manufacturing capacities and other delivery constraints to establish and support a specific fielding schedule.

#### 1.4.3 Logistic Concept

1.4.3.1 Maintenance. System support and sustainment for MTS will be performed by existing organizations in accordance with the prescribed command maintenance and supply policy. COTS/NDI ADPE is procured with an established warranty period in accordance with the appropriate procurement contract. The warranty and post-warranty hardware and software maintenance support plan for MTS hardware is based on a two level concept: user/operator-level and vendor/contractor supplied maintenance. More detailed information regarding MTS maintenance is provided at paragraph 4.1, Maintenance Plan.

1.4.3.2 Supply Support. The PM MTS and application system developer (ASD) will coordinate supply support with the ILSM to ensure hardware equipment, and supplies are on hand to meet implementation and subsequent operational needs. Other than expendable supplies, no MTS items will be obtained through the Army supply structure.

## 1.5 Administrative Instructions

### 1.5.1 Primary Points of Contact (POCs):

1.5.1.1 Program Executive Officer (PEO). The PEO Standard Army Management Information Systems (STAMIS) is responsible for providing planning guidance, direction, control, and support necessary to field assigned systems within cost, schedule, and performance baselines. The PEO STAMIS executes assigned programs as approved by the DA and ensures that all Army agencies involved in the acquisition of Army materiel are responsive to the needs of the PM in achieving programmatic goals. The PEO STAMIS is responsible for the planning, programming, budgeting, and execution necessary to guide these programs through all milestones.

ADDRESS: Program Executive Officer  
Standard Army Management Information Systems  
ATTN: SFAE-PS-D (Moore)  
9350 Hall Road  
Fort Belvoir, Virginia 22060-5526  
POC: Ms. Kay Moore  
COMM: (703) 806-3627 DSN: 656-3627  
Email: [kay.moore@peostamis.belvoir.army.mil](mailto:kay.moore@peostamis.belvoir.army.mil)

1.5.1.2 Program Manager Global Combat Support System-Army (PM GCSS-Army). PM GCSS-Army has overall responsibility for planning, coordination, evaluation, development, deployment and post-deployment software support of MTS.

ADDRESS: Project Manager  
Global Combat Support System-Army  
ATTN: SFAE-PS-RS (Broughall)  
800 Lee Avenue  
Fort Lee, Virginia 23801-1718  
POC: COL Stephan Broughall  
COMM: (804) 734-7665 DSN: 687-7665  
Email: [broughhall@lee.army.mil](mailto:broughhall@lee.army.mil)

1.5.1.3 Product Manager/Materiel Developer.

a. Product Manager. The Product Manager (PM), PM MTS influences materiel system requirements and design to achieve and sustain established operational requirements while minimizing operating and support cost; ensures that all ILS elements are planned, developed, tested, evaluated, acquired, and deployed prior to, or concurrent with, MTS; provides NET and logistics support that enable the system user and functional personnel to operate and support MTS when fielded; ensures the first procurement of equipment (to include any required support equipment and basic sustainment material) is provided to the trainer and NET organization for development of institutional and initial training; and ensures that plans and procedures are developed to integrate and acquire the ILS elements effectively with consideration to the Manpower and Personnel Integration (MANPRINT) process.

b. Materiel Developer. As the Materiel Developer (MATDEV), PM MTS has overall responsibility for planning and implementing ILS as an integral part of assigned materiel acquisition programs.

ADDRESS: Product Manager (Acting)  
Movement Tracking System  
ATTN: SFAE-PS-RS (Mims)  
800 Lee Avenue  
Fort Lee, VA 23801-1718  
POC: Ralston L. Mims  
COMM: (804) 734-6047 DSN: 687-6047  
Email: [mimsr@lee.army.mil](mailto:mimsr@lee.army.mil)

1.5.1.4 Functional Proponent (FP). The Deputy Chief of Staff for Operations and Plans, Headquarters, Department of the Army (HQDA) is the FP and is responsible for identifying the specific logistics functions to be automated.

ADDRESS: Headquarters  
Department of the Army  
Office of the Deputy Chief of Staff for  
Operations and Plans  
ATTN: DAMO-FDL (Huber)  
Washington, DC 20310  
POC: Mr. John Huber  
COMM: (703) 697-0423  
Email: [john.huber@hqda.army.mil](mailto:john.huber@hqda.army.mil)

1.5.1.5 Combat Developer. TRADOC is the CBTDEV and user representative. TRADOC is responsible for concepts, doctrine, organization, and materiel objectives and requirements relating to the employment of MTS in a Theater of Operations.

ADDRESS: Commander  
U.S. Army Training and Doctrine Command  
Directorate of Combat Development Transportation  
ATTN: ATCL-T (Wilhide)  
3901 A Avenue, Suite 230  
Fort Lee, VA 23801  
POC: CPT Brent Wilhide  
COMM: (804) 734-2887 DSN: 687-2887  
Email: [wilhide@lee.army.mil](mailto:wilhide@lee.army.mil)

1.5.1.6 Integrated Logistic Support Manager (ILSM). The PO TACMIS is the activity responsible for the management of hardware related ILS actions for PEO STAMIS.

ADDRESS: PO TACMIS  
ATTN: SFAE-PS-TPL (Topping)  
9350 Hall Road, Suite 142  
Fort Belvoir, VA 22060-5526  
POC: Mr. John Topping  
COMM: (703) 806-3056 DSN: 656-3056  
Email: [john.topping@peostamis.belvoir.army.mil](mailto:john.topping@peostamis.belvoir.army.mil)

1.5.1.7 TACMIS Systems Extension and Acceptance Team (SEAT). The TACMIS SEAT representative assists in the planning, scheduling, coordinating, and conduct of the MTS fielding effort.

ADDRESS: Product Manager  
Movement Tracking System  
ATTN: SFAE-PS-RS (Dixon)  
800 Lee Avenue  
Fort Lee, VA 23801-1718  
POC: Mr. Cleve Dixon  
COMM: (804) 734-7142 DSN: 687-7142  
Email: [dixonc@lee.army.mil](mailto:dixonc@lee.army.mil)

#### 1.5.2 Changes to the MFP

a. Comments and/or recommended changes to this MFP should be submitted on DA Form 2028, Recommended Changes to Publications and Blank Forms.

b. Send all correspondence and/or recommended changes relating to this MFP to the POC listed in paragraph 1.5.1.6, above.

c. Information copies of correspondence and/or changes should also be provided to the POC listed in Section 1.5.1.3 above.

d. Changes and/or updates to this MFP will be published by PO TACMIS, as required, until all MTS fieldings are completed.

1.5.3 Fielding Evaluation. All gaining commands will ensure that each unit receiving the MTS completes DA Form 5666-R, Gaining Command Fielding Evaluation.

a. This form will be forwarded to the address in paragraph 1.5.1b within 30 days following the handoff of equipment.

b. A copy of the form is contained in Appendix 9.4 - Gaining Command Fielding Evaluation.

1.5.4 Special Requirements. Any special MACOM requirements for MTS should be transmitted to PM MTS, with information copies to PO TACMIS Logistics at the Email addresses listed in paragraph 1.5.1. above.

1.5.5 Acknowledging Receipt of MFP. Within 30 days following receipt of this MFP, each recipient should provide, by message to the address listed in paragraph 1.5.1.7, the following information if changed from the current MFP distribution list:

a. Current mailing address, office symbol, name of POC, telephone number and Email address.

- b. Current message address.
- c. Needed quantities of subsequent MFP updates/changes.

#### 1.5.6 MFP Distribution

a. This MFP is distributed directly to MACOMs, schools, and other agencies in a single hard-copy format. It will also be distributed via E-mail and/or on diskettes in MicroSoft Word 6.0 format.

b. Recipients are responsible for further distribution to their major subordinate commands.

c. MACOMs should ensure that the unit POC has a complete copy of this MFP at least 30 days before the Installation Survey (IS).

d. All agencies will complete those actions required in accordance with paragraph 3.1 of this MFP before the IS.

## SECTION 2

### SYSTEM DESCRIPTION

#### 2.1 Functional and Physical Configuration

##### 2.1.1 Overall Description

a. The MTS is a military application of a commercial system that will allow movement control/management personnel and Commanders to track and communicate with tactical wheeled vehicles.

b. MTS uses a two-way data communications system that provides users in a tactical/non-tactical environment the capability to send and receive position reports and text messages anywhere in the world, 24-hours per day. The system takes advantage of commercially available satellite communications services and low cost commercial off-the-shelf/non-developmental items (COTS/NDI) components to provide this capability.

c. MTS allows Commanders to monitor locations of vehicles and maintain two-way communications during various levels of conflict. MTS provides the ability to reroute supplies to higher priority needs, avoid identified hazards, and inform operators of unit location changes. This system also provides mobile or fixed data communications from MTS equipped assets. Primary advantages of the MTS system include:

- (1) COTS/NDI equipment.
- (2) Two-way, near real-time communications and tracking capability.
- (3) Mobile to mobile communications.
- (4) Ruggedized components (V2).
- (5) Embedded GPS (in compliance with GPS Receiver Application Module (GRAM) guidelines. GPS GRAM 001).
- (6) Backup battery when primary power source is not available.
- (7) On-the-move communications (no requirement to stop and aim the antenna).
- (8) Tracking and monitoring of moving TWVs.
- (9) In transit visibility of assets and equipment.

d. Usage Time/Air Time. Usage Time/Air Time. Each component of the MTS system; Control Station ((V)3), Mobile Station ((V)2), and Hand Held ((V)1) will be fielded with 400 days of satellite air time. **Each time the component is activated, the commercial satellite will recognize the connection as one full day (24 hours) of usage no matter whether the component is used for 1 minute, 1 hour or the full day.** Additional airtime (over and above the 400 days) is separately funded from other program funding. At the end of a given period (not yet determined) MTS Operation and Maintenance Army (OMA) funding will be reviewed (at DA level) and reallocated with the intent to cover the additional airtime requirement. These reallocated OMA funds will be provided to users via MACOMS, to support procurement of airtime from the MTS contract.

##### 2.1.2 Functional Description

a. Like the ARINC WRAP prototype, the COMTECH Mobile Datacom (CMDC) MTS utilizes a satellite network to transmit position reports and messages. The CMDC MTS will however, provide an improved communications capability over the ARINC prototype. The CMDC MTS was selected for Army MTS contract award because this particular system can use numerous commercial satellites already in orbit, provides an improved near real-time communications speed, and security features.

b. The CMDC MTS used with Army units stationed in CONUS can be transported to Europe, Korea, or any other worldwide location and operate with satellites already in orbit over that region. The real time messaging speed is also a great improvement over similar commercial systems. Whereas an average message can be transmitted to another MTS unit in less than 10 seconds, other commercial MTS systems can take as long as 15-20 minutes to transmit the same type of message. Regarding system security, the waveform used by CMDC's MTS is "spread spectrum" and hard to detect by unauthorized listening devices. In addition, message data is encrypted several times to improve transmission security.

2.1.2.1 Application. The MTS will be used to support missions through the full spectrum of military operations from peace time to war.

2.1.2.2 Replaced Systems. Not applicable. No standardized system currently exists in the Military's inventory that provides the capabilities of the MTS. MTS is a new initiative and does not replace any currently fielded systems. The prototype system now being utilized with PLS-E will eventually be replaced as migration from the Threshold system to the Objective system occurs.

2.1.2.3 Interfaces. MTS will provide the capability for direct electronic linkage to or from the Army STAMIS Global Combat Support System-Army (GCSS-Army) and the Transportation Coordinator's-Automated Information for Movements System II (TC-AIMS II). The interface with GCSS-Army (Information Management Module when it becomes available) is projected to be implemented by 1QFY03. This interface will facilitate the collection, consolidation, and centralized/decentralized databases storage of information required for the efficient manage MTS equipped assets. The TC-AIMS II- MTS interface is a Block II enhancement with a TBD implementation date. When implemented, this interface will enable MTS equipped transportation assets to be tasked by TC-AIMS II.

2.1.2.4 Standardization and Interoperability Constraints

a. Planned deployment and employment requirements have been considered by the PO TACMIS and the PM MTS in the hardware and software procurement and support processes.

b. The MATDEV will coordinate ILS planning for hardware. The SIPT will ensure hardware ILS elements are continually addressed in the system design process. ILS participation in Design Reviews and Tradeoff Studies is limited. Since MTS is using COTS/NDI hardware, no hardware design is required. PM MTS is responsible for configuring hardware and software based upon recommendations contained in the Design Plan and operational requirements.

c. There are no contract incentives applicable to hardware acquisition.

2.1.2.5 Interoperability. As a future capability, MTS must interoperate and exchange data (either automatically, semi-automatically, or manually) with other management information systems (MISs) and communications systems to facilitate MTS equipped asset management, distribution, and mission tasking. Interoperability and data transmission interchange require that MTS hardware

and software be compatible with communications hardware and software used to transmit to and from MTS using units.

### 2.1.3 Physical Configuration.

2.1.3.1 System Hardware. The configuration, common name, and nomenclature for the MTS equipment is reflected in the tables in Appendix 9.7 - Components of End Item List.

2.1.3.2 System Software. MTS will utilize open system architecture using a Windows operating system and map information mapping software. Communications specific software is proprietary but can use industry standard X.400 format. Currently, all system software exists and is not dependent upon evolving technology. The open system lends itself to future integration.

### 2.2 Associated Equipment

2.2.1 Operational Equipment. There is no other associated equipment that is separately authorized.

2.2.2 Transport Equipment. MTS hardware will be issued with transit cases to facilitate movement as well as provide protection of equipment during transport. MTS has no special transportation requirements.

### 2.3 Operational and Organizational Plan

#### 2.3.1 Mission Need

a. The U.S. Army must have the capability to track the location of vehicles, communicate with vehicle operators (U.S., and where required, other nation), and redirect movements based on battlefield requirements. MTS is a part of a suite of digitization additions planned for use with tactical wheeled vehicles (TWV) and will play a vital role in future battlefield command and control/distribution operations. Both the maneuver commander's mission capability and the logistical commander's support capability will be improved by the use of MTS. Based on lessons learned from our most recent campaigns, the inability to track, communicate with, and reroute TWVs resulted in the inefficient use of assets, increased risk to personnel and equipment, and the delivery of supplies to incorrect locations. The use of MTS will provide a capability to prevent a repeat of these problems.

b. Force XXI Operations, described in TRADOC Pamphlet 525-5, will involve rapid force projection from the CONUS or forward deployed locations, extended lines of communications, and operations in logistically bare-based areas. This change in strategic direction combined with the downward trend in the size of the force will demand considerable changes in the way both warfighters and logisticians do business. More than ever, the Army will require a deployment capability and distribution system that is versatile, expandable, and as capable as the force it supports. To achieve this, full advantage must be taken of continuous advancements in technology.

c. The Battlefield Distribution (BD) and Velocity Management (VM) concepts enunciate the type of revolutionary and innovative approach necessary to develop the Combat Service Support (CSS) systems required to meet the challenges identified in Force XXI. BD encompasses the distribution of materiel, equipment, and soldier items through the logistic pipeline from "factory to foxhole". For the Theater of Operations (TOPNS), BD articulates the hub and the spoke distribution method to provide quick delivery of supplies. The focus of VM is on CSS processes and how they can be improved. VM will ultimately result in reduced stocks and real dollar savings as the Army replaces support mass with precision and speed. In short, these concepts

will see the Army going from a "supply based", to a "transportation based" distribution system.

d. To support the requirements of Force XXI, the Army requires enhanced control of its assets and increased in-transit visibility (ITV) of cargo. The MTS provides a commander the capability to control his assets over the distances required by the Force XXI battlefield. Combined with interfaces to automatic identification technology (AIT), MTS will be capable of providing enroute ITV of cargo. Put simply, MTS provides positive control of critical assets anywhere in the non-linear combat zone.

2.3.2 Mission Scenario. MTS will be used to support missions through the full spectrum of military operations from peacetime to war. MTS is needed to provide commanders with real/near real time data on the location and status of movements. This capability will improve effectiveness and efficiency of limited distribution platforms, provide the ability to reroute supplies to higher priority needs, avoid identified hazards, and inform operators of unit location changes.

a. MTS will provide vehicles and watercraft visibility wherever they may be deployed throughout the world. All common user logistic transport (CULT) vehicles, selected combat support (CS), and CSS TWV, and watercraft will be fitted with MTS Mobile Units. In addition, portable MTS units can be made available to host nation or foreign national forces contributing to a combined operation for use in leased, contracted, or other vehicles that may be utilized in the distribution role, but which would not normally be equipped with MTS. MTS will provide watercraft transportation unit commanders with the capability to track and communicate with assets employed across the spectrum of operations such as established port, Logistics Over-the-Shore (LOTS), intracoastal, inland waterways, and amphibious operations.

b. When employed within the distribution system, the capabilities of MTS will improve the effectiveness and efficiency of limited distribution assets, provide the ability to reroute supplies to higher priority needs, enable the avoidance of identified hazards, and inform operators of unit location changes. In addition, MTS enhancements such as MTS's interface with embedded equipment diagnostic and prognostic systems, will provide accurate data that will aid fleet maintenance and improve availability and overall service life. Uses of the MTS Objective System envisioned will include, but will not be limited to:

(1) Traffic Regulation/Control. MTS will be used by the Military Police at Division and above to track traffic/circulation control teams and to provide Command and Control (C2) information. The teams will use MTS to pass road condition and enemy action information along the major supply route (MSR) to Movement Regulating Teams (MRT). The traffic control teams will coordinate closely with the movement control elements to update and pass information on MSR interdiction, traffic congestion, or any other situation influencing movement in the area. They will pass information to their MTS Control Station or directly to affected transportation.

(2) Medical Support. The MTS will enhance medical ambulance operations at Brigade and above. It will provide medical Ambulance Company Commanders with real/near real time visibility of ambulance asset locations facilitating tasking/retasking to meet changing requirements and priorities. MTS will provide ambulance operators and medical staff with the conduit to enable near real-time guidance/technical assistance for the emergency treatment of casualties by ambulance personnel en route. When integrated with the appropriate medical equipment, MTS will enable the monitoring of patient vital signs by the destination medical facility.

(3) Explosive Ordnance Disposal (EOD) Service Operations. MTS will assist in the C2 of EOD operations in the Corps and Theater. It will provide commanders of EOD groups, Battalions, and Companies near real-time visibility of response team locations thereby enhancing flexibility in planning operations and tasking. MTS, integrated with embedded video technology, will provide guidance/technical assistance to EOD personnel when undertaking the many requirements of EOD tasks.

(4) Maintenance Operations. MTS will give maintenance unit commanders, at Brigade and above, visibility of repair teams and recovery assets. This capability will enhance maintenance operations planning and facilitate the tasking/retasking of repair/recovery assets. The flexibility provided by MTS will enable repair/recovery assets to immediately react to the ever changing priorities within the AO.

(5) Field Service Operations. MTS will be utilized to track and control the Quartermaster Field Service Company's Shower, Laundry and Clothing Repair Teams (SLCRTs) deployed within the Divisional area of operations. An MTS Control Station established at the Company HQ will provide Company Commanders and operations staff with near real-time visibility of, and enable direct communications with SLCRTs as required. As with SLCRTs, the MTS will be equally applicable to Mortuary Affairs (MA) operations. It will provide Quartermaster MA Company Commanders and operations staff with near real-time visibility of and enable direct communications with MA collection teams and other MA assets as required.

(6) Finance Management Operations. The MTS is applicable to Finance Detachment (FD) and Finance Support Team (FST) operations in the echelons above Corps (EAC), Corps, and Division AOs. A FD will typically provide support to approximately 6000 personnel. To achieve its mission, a FD is broken into three FSTs, which move from one unit location to another to provide finance support to soldiers and advice and guidance to unit commanders. MTS will provide FD commanders with near real time visibility of FSTs enabling tasking/retasking as priorities, unit locations, and circumstances change.

(7) Religious Support (RS) Operations. The MTS application to RS is similar to financial management operations. MTS will also be utilized in EAC, Corps, and Division to enable Unit Ministry Teams (UMTs) and individual UMT members (chaplains or chaplain assistants) to be tracked. The communications capability inherent to MTS will enable passage of information between chaplains, UMT and UMT members and facilitate en route tasking/retasking as the situation requires. MTS will provide UMTs with unit locations to facilitate movement from unit to unit or religious group to religious group.

(8) Water Transport Operations. As with ground transportation mode operators, MTS will provide watercraft transportation unit commanders with the capability to track and communicate with assets employed across the spectrum of operations: established ports, LOTS, intra-coastal, inland waterways, and amphibious.

### 2.3.3 Organizational Plan.

a. MTS will be employed at all levels of the distribution management system. At Echelons Above Corps, MTS Control Stations will be established at the Theater Support Command (TSC) Distribution Management Center (DMC), Movement Control Agencies (MCAs), Movement Control Battalions (MCBs), Movement Control Teams (MCTs), distribution terminals (nodes), Supply Support Activities (SSAs), mode operators, etc., and will aid the smooth movement of units, equipment, and sustainment from the Air Point of Debarkation/Sea Point of Debarkation to the consignee, designated port, air head, or SSA. The MTS will be an essential component of Reception, Staging, Onward Movement, and Integration operations.

b. In the Corps and Division, MTS Control Stations will be established in DMCs, MCBs, MCTs, nodes, SSAs, and mode operations for much the same purpose as at Theater. At Brigade, MTS Control Stations will be found in the Logistics Operations Section of the Forward Support Battalion (FSB) to provide the Brigade with visibility of non-Brigade transportation assets transiting the AO. The Brigade Movement Control Non Commissioned Officer will operate the MTS Control Station.

c. MTS will be located in the Military Police units at Division and above, medical ambulances at Corps and Theater, and EOD units at the Corps and Theater. MTS will give maintenance unit Commanders, at Brigade and above visibility of repair teams and recovery assets. In addition, the MTS will be found in Finance units, UMTs, and Field Service Units throughout the Theater.

### 2.3.4 Operational and Maintenance Parameters

2.3.4.1 Operational Requirements. General operational requirements of MTS are:

a. MTS will support the functional requirements approved by the Functional Proponent and documented in the MTS Operational Requirements Document.

b. MTS will operate on the COTS/NDI hardware.

c. MTS will provide information on demand as requested by system operators.

d. MTS will be designed so that all critical tasks related to its operation, maintenance, and support can be performed by trained personnel without requiring either increases in planned manpower, increases in planned training, or greater aptitudes and abilities than expected in the target audience. Hardware and software design characteristics must not induce cognitive nor physical stress, and must not create short or long term safety or health hazards.

e. The user interface for the system will be a graphical user interface (i.e., pull down menus and point and click applications).

f. The system will be standardized so that the user will be able to transition easily from peacetime operations to war/contingency operations.

2.3.4.2 Operational Characteristics/System Performance. The following is a list of operational characteristics/capabilities of the system.

a. The same basic hardware will be used for all MTS Control Station, vehicle mounted Mobile Unit, and hand-held Mobile Unit configurations.

Additional hardware or software will not be required for a mobile station to operate as a control unit.

b. Mobile Unit-vehicle mounted, mounting brackets, and cable connectors will allow for quick, easy installation and removal of the computer unit by a 5th through 95th percentile male or female soldier in 10 minutes or less. The MTS will be interchangeable among all vehicles. Updating the vehicle identification contained in the MTS will require a minimum of operator input and be completed in less than two minutes by 5<sup>th</sup> through 95<sup>th</sup> percentile male or female soldiers.

c. MTS will be capable of receiving, storing and transmitting (read/write) data from Army specified AIT assets. Block II MTS must be capable of receiving, storing, and transmitting vehicle diagnostic and prognostic systems data. The MTS will interact with existing/planned AIT systems to provide the location and contents of all cargo that is being loaded, transported, and unloaded as well as provide the capability of sending vehicle diagnostic/prognostic information to unit operations.

d. MTS will provide computer imaging which simultaneously displays digital maps with computer generated icons. The icons represent the geographic positions of user selected MTS equipped platforms or operations on the Control Station and Mobile Unit-vehicle mounted.

e. MTS will provide non-line-of-site, real/near real time, two way data/messaging communications between MTS equipped operations at any distance. MTS must be able to operate between 70 degrees North and 70 degrees South latitude. MTS will be capable of operating without the use of dedicated telephone connections (landline or cellular). The Control Station configuration only, will be capable of operating via telephone (landline or cellular) as an alternate means of communication. For Block II MTS, the system must be capable of operating (tracking and communicating) at any location throughout the world (to include polar regions and oceans) and have the desired capability of not being restricted to a single satellite provider, thereby allowing the Army the flexibility to choose among providers.

f. Message and position transmission and reception will use a system designed to lower interception, detection, exploitation, and jamming of message traffic. MTS transmission signal security will be increased lowering probabilities of detection and intercept.

g. MTS in the Mobile Unit and Control Station configuration will operate on 12-32 volt direct current (DC), 110 volts 60 cycle alternating current (AC), and 220 volts 50 cycle AC. These two configurations will be equipped with a backup power source that allows the operator to send a minimum of two position reports (five desired) and one text message (five desired) over a 90 minutes period when the primary power source is depleted or not available. The mobile unit (V2) and Hand Held (V1) units will have an indicator to inform the operator that he is operating on backup power.

h. MTS will provide both fixed format and user generated data communications between MTS equipped platforms and operations. Communications will be accomplished by transmitting data messages between the Control Station(s) and mobile unit(s). Two way communication is essential to allow control personnel to reroute/redirect vehicles and allow them to report status and hazardous conditions when enroute.

i. MTS will provide geographic positioning capability and positioning data that is compliant with the GPS Receiver Application Module (GRAM) guidelines, GPS GRAM 001. The vehicle location data must be compatible with National Imagery and Mapping Agency supported data. Block II MTS will have

provisions for upgrade to selective availability anti-spoofing module or like device and be compliant with SS-GPS-001. The GPS receiver that is compliant with both the GPS GRAM 001 and SS-GPS-001 will employ the features of direct acquisition rapid time to fix (Y Code), jamming resistance, open architecture, expandable memory, and field reprogrammability suitable to the projected operating environment. Block II MTS mapping capability will be expandable to take advantage of future military geographic positioning systems.

j. MTS will provide scheduled and "on demand" transmission of geographic positioning data. The MTS operators require the ability to poll the system at any time to determine the exact location of a platform. This allows improved use of platforms, allows for transmission of more precise directions, and allows calculation of movement progress.

k. MTS will be capable of displaying last known and current location of all selected MTS equipped vehicles. It is desired that the capability to create dead reckoned positions be provided for Block II MTS. Such positions will be tagged as "Estimated" and will not interfere with planned interface requirements. This capability will allow movement control units to determine the routes taken by particular platforms in the event signal transmissions are interrupted. This will also provide a history of the last known location in the event maintenance or rescue personnel are dispatched. Predicating possible location can be valuable if communication is lost and it is determined that rescue procedures should begin. The estimated location would provides a logical starting point.

l. MTS will provide the capability for direct electronic linkage to or from an Army specified STAMIS, currently identified as Global Combat Support System-Army (GCSS-Army) which will contain or interface with the STAMIS of Standard Army Ammunition System-Modernized (SAAS-MOD), Standard Army Retail Supply System-1/2A/2AC/B (SARSS-1/2A/2AC/B), Unit Level Logistics System-Ground/Aviation/S4 (ULLS-G/A/S4, Standard Army Maintenance System (SAMS), Integrated Logistics Analysis Program (ILAP), Theater Medical Information Program-Army (TMIP-A), Theater Army Medical Information System (TAMMIS), and Standard Installation/Division Personnel System (SIDPERS). The Objective MTS will provide for a direct electronic linkage to the Transportation Coordinator's-Automated Information for Movements System II (TC-AIMS II).

m. MTS will permit installation and effective operation by 5th through 95th percentile male and female soldiers while wearing Mission Oriented Protective Posture IV (MOPP IV) gear and cold weather protective clothing. This will ensure that MTS can be installed and operated by all soldiers when wearing all types of protective clothing.

n. MTS will permit installation while wearing night vision devices. Block II MTS will have the desired capability to conduct operations with night vision devices. Operations conducted under blackout conditions will require the removal and installation of MTS while wearing night vision devices.

o. MTS will not emit noise levels higher than 70db during operation. The noise level will not exceed that of the platform noise signature or recommended exposure levels for operators either in the vehicle or command control location.

p. MTS will not degrade light discipline. MTS will not emit visible light that will aid in identifying vehicle position during blackout conditions. Brightness and contrast controls will be included in order to minimize visible light and maintain light discipline.

q. MTS will withstand shocks and vibrations experienced by the host vehicle without becoming inoperable or displaying degraded images.

r. MTS will be capable of operating in sustained day or night operations in hot, basic, or cold climates as defined in AR 70-38.

s. The control station will have the capability to poll Mobile Units for data at any time. This will allow movement control and command and control personnel to query the system to determine the last known positions of all Mobile Units as well as any specific/cargo data without driver intervention.

t. MTS will employ Information Security to ensure against enemy exploitation of TWV locating and logistics information.

u. For block II will have a RS232 input/output port for transmitting vehicle mechanical data or other related information.

v. MTS will be capable of being integrated into all existing and future TWVs without the need to relocate components or externally mounted non-antenna components.

w. MTS must provide an efficient and effective man-machine interface for operators and maintainers, particularly including the human-computer interface at the Control Station.

x. MTS displays, when used in the Control Station and Mobile Unit-vehicle mounted configurations must accommodate user definition (by menu and command) of information required, manipulation of related parameters, and tailored (automatic) storage (e.g., last known position per vehicle ID and time).

y. All MTS messages will be delivered from point of origin to destination (Mobile Unit to Control Station; Mobile Unit to Mobile Unit; Control Station to Control Station; Control Station to Mobile Unit) within 30 seconds to include any retransmissions and message queuing. The point of origin and destination are assumed to be in the same theater of operations. For Block II MTS, point of origin and destination can be at any point worldwide.

2.4 Deployment Schedules. A fielding schedule is outlined in Appendix 9.21 - Fielding Schedule.

### SECTION 3

#### FIELDING AND LOGISTIC SUPPORT PROCEDURES

##### 3.1 Command and Control Procedures

##### 3.1.1 Fielding Command and Control Procedures

##### 3.1.1.1 Organizational Responsibilities

3.1.1.1.1 PM MTS. PM MTS is responsible for selecting and procuring the hardware components and associated selected software applications. All funding obligations and requests will be referred to PM MTS. The address and telephone number is as follows:

ADDRESS: Product Manager (Acting)  
Movement Tracking System  
Attn: SFAE-PS-RS (Mims)  
800 Lee Avenue  
Fort Lee, VA 23801-6145  
DSN: 687-6646

3.1.1.1.2 Fielding Sequence of Events. The planned sequence of events for the MTS fielding will be contained at Appendix 9.6 - Fielding Sequence of Events.

##### 3.1.1.1.3 Controlling Documents

3.1.1.1.3.1 MFP. This MFP is the master planning document governing all of the major events and support actions required to field the MTS. The MFP will be continually updated to reflect the most current information throughout the planning and execution phases of the fielding. The MFP will be upgraded to Final upon receipt of signed MFAs for each MACOM.

3.1.1.1.3.2 Mission Support Plan (MSP). The MSP is a critical document outlining coordination requirements for logistics support. Information from the MSP is used for planning spares and support equipment as well as for the DD Form 250, Material Inspection and Receiving Report, prepared by the MTS hardware vendor. Each MACOM is directed to submit a MSP to PM GCSS-Army after receipt of the MTS MFP. Those elements that are not covered in the MSP will be documented in the MOA. Guidance on preparing the MSP is contained in AR 700-142, Par 4-6. The MSP should list the DoD Activity Address Code (DODAAC) for each gaining unit, and include a POC, building number, and phone number for each gaining unit. Distribution of the MSP must include the following address:

ADDRESS: Product Manager (Acting)  
Movement Tracking System  
Attn: SFAE-PS-RS (Mims)  
800 Lee Avenue  
Fort Lee, VA 23801-1718  
DSN: 687-6646

##### 3.1.1.1.3.3 Materiel Fielding Agreement

a. The MFAs between PM MTS and each gaining MACOM will provide guidelines for the responsibilities, functions, and requirements for fielding the system within the gaining MACOMs. This Materiel Fielding Plan will not be considered Final for any MACOM without a signed MFA.

b. Signed MFAs will be attached as enclosures to this MFP in Appendix 9.1 - Agreements, and will be considered a part of the MFP for fielding the system within the MACOM.

3.1.1.3.4 Memorandum of Agreement (MOA). The MOA is developed during the installation Survey (IS).

a. The MOA is a detailed fielding schedule and formally documents, with fact sheets, all actions required to be completed before the MTS fielding.

b. The body of the MOA lists understandings, agreements, general concerns, and major support and resource requirements. Enclosures to the MOA provide a calendar of events, general and STAMIS specific fact sheets, detailed training schedules, and attendance lists from various meetings. Fact Sheets detail specific concerns or problems and recommended actions to be taken before the MTS fielding.

c. MOAs are normally signed by the installation Commander or Chief-of-Staff or persons of equivalent rank; STAMIS technical and functional team leaders, and the Chief of Installation (COI).

### 3.1.2 Gaining MACOM Command and Control Procedures

3.1.2.1 General. Each MACOM will formalize an MFA with PM MTS to outline responsibilities for fielding equipment within the command. Each MACOM will participate in In-Process Reviews (IPRs), and coordinate actions relating to equipment fielding. The MACOM will appoint a representative to coordinate and monitor implementation of the MFA and development of subordinate unit MOAs.

3.1.2.2 Gaining Units. Each gaining unit will designate a project officer responsible for managing all actions necessary to implement the applicable MFA and MOA related to the installation of the MTS hardware and extension of the MTS application at the gaining unit.

### 3.2 Logistic Assistance

3.2.1 Assistance Agencies. Logistics assistance activities, normally U.S. Army Materiel Command (AMC) Logistics Assistance Offices (LAOs) and Logistics Assistance Representatives (LARs), provide logistic assistance under the provision of AR 700-4. The LARs are not part of the maintenance structure, but may recommend maintenance actions or procedures to their supported units. They may also offer assistance or advice in areas such as training or supply support. AMC is responsible for obtaining assistance in support of MACOM system fielding and continuing technical support for the MTS. The LARs, in turn, will contact PO TACMIS for further assistance with the MTS problems. Assistance with software related problems can be obtained through the Installation/Division CSSAMO, who is the STAMIS software representative for that organization.

3.2.2 The AMC Logistics Assistance Program (LAP). The Commanding General, AMC, provides, manages, and controls the AMC worldwide LAP. Program execution is accomplished by the Director, AMC Logistics Support Activity (LOGSA) at Redstone Arsenal, AL. The appropriate LARs can be contacted through the LAO network outlined in Table C-2 (Supporting LAR/LAO/Field - Service Offices) of DA PAM 738-750, Functional Users Manual for The Army Maintenance Management System (TAMMS).

3.2.3 Other MACOM Logistic Assistance. PM MTS is the system hardware materiel developer, and is responsible for coordinating logistics support. Assistance with systemic logistics related issues is available at the following address and phone numbers:

Project Manager (Acting)  
Movement Tracking System  
ATTN: SFAE-PS-RS (Mims)  
800 Lee Avenue  
Fort Lee, VA 23801-1718  
DSN: 687-6646

### 3.3 Depot Level Or Contractor Support

3.3.1 Organic Support. Depot level organic support will be contractor provided as required.

3.3.2 Contractor Support. The warranty and post-warranty hardware and software maintenance support for MTS hardware will be contractor provided for the life of the system. MTS hardware is warranted for a period of three (3) years. Once the warranty period has expired, the MACOMs are responsible for all post-warranty support and maintenance funding.

3.3.3 Interim Contractor Support. Interim contractor support is provided through original equipment manufacturer (OEM) warranty procedures.

3.3.4 Contractor Logistics Support. Contractor support for the initial fielding of the MTS hardware will be conducted IAW with contracts maintained by PMO MTS.

3.3.5 Contractor Support for Initial Fielding. COMTECH Mobile DataCom Corporation will provide engineers to install the Mobile Unit, Vehicle Mounted ((V)2) for each initial installation. Additional contractor support for the initial fielding of the MTS hardware will be conducted IAW with contracts maintained by PMO MTS.

### 3.4 Materiel Defects Correction

3.4.1 Materiel Defects. The procedures outlined in paragraphs 4.1 - Maintenance Plan and 4.2 - Warranties will be utilized to report and correct materiel defects and/or user problems.

3.4.2 Equipment Improvement Reports (EIR). The procedures for utilizing the EIR process are contained in DA PAM 738-750. These reports are prepared using Standard Form (SF) 368 (Product Quality Deficiency Report) to report equipment faults in design, operations, and manufacturing of new equipment which is below standard quality in workmanship.

3.4.3 Logistic Support Problems. The problems experienced by units subsequent to system acceptance will be resolved by PM MTS. Detailed information on resolving warranty problems is located in paragraphs 4.2 through 4.2.16 and Appendix 9.5 - Warranties.

3.4.4 Exceptions to Defects Correction. Due to hardware warranty considerations, opening the covers of the MTS equipment is prohibited.

### 3.5 Coordination

a. As specified in DA PAM 700-142, copies of the MFP are forwarded to the gaining MACOMs for review, comment, and distribution to gaining units for review and comment.

b. An MFA is formalized with each MACOM.

(1) The MFA provides the basis for planning and coordinating the fielding process at the gaining unit level.

(2) It also identifies the MACOM and unit POCs.

c. The COI will issue a coordination message establishing an IS. A typical fielding sequence of events can be found at Appendix 9.6 - Fielding Sequence of Events.

## SECTION 4

### SYSTEM SUPPORT DETAILS

4.1 Maintenance Plan. MTS system maintenance will consist of a combination of user/operator-level and vendor/original equipment manufacturer (OEM) supplied maintenance support.

4.1.1 Maintenance Reporting Requirements. MTS Maintenance reporting requirements will be in accordance with AR 750-1 and under the provisions of DA Pamphlet 738-750. A Maintenance Request, DA Form 2407/5988-E, will accompany each MTS unserviceable/serviceable Line Replaceable Unit (LRU) in the maintenance support channel.

4.1.2 Hardware Maintenance Concept. MTS system maintenance will consist of a combination of user/operator-level and vendor/original equipment manufacturer (OEM) supplied maintenance support. The MTS hardware is procured with an established warranty period in accordance with the appropriate procurement contract. During both warranty/post-warranty hardware maintenance periods, the MTS will be maintained under a two-level maintenance concept: user/operator-level and vendor/OEM contracted maintenance for the life of the system.

(1) Using unit operator personnel will perform authorized preventive maintenance checks and services (PMCS) and turn in all equipment requiring repair to their Direct Support Unit (DSU) Supply Support Activity/Installation Supply Support Activity (SSA/ISSA). Verification that the Line Replaceable Unit (LRU) is inoperable will first be obtained from the S-6 (Communications-Electronics Officer) or CSSAMO/IMO before equipment turn-in to the DSU SSA/ISSA is transacted.

(2) The DSU SSA/ISSA personnel will receive/process equipment requiring exchange or repair. Once the defective equipment is received, regardless of whether the faulty LRU is under warranty or not, it will be repaired by the vendor/OEM utilizing on-site or mail-in procedures on-site or a combination of both. The location of maintenance will be transparent to the using unit as **the using unit will be provided with an operational replacement of the defective equipment from on-hand SCX at the time of turn-in to the DSU SSA/ISSA**. Once the defective item is repaired or replaced by the vendor/OEM, it will be returned to the SCX stockage maintained at the DSU SSA/ISSA.

(3) SCX stockage will be maintained at the DSU SSA/ISSA at an eight percent ratio to support equipment for SCX.

#### 4.1.2.1 Maintenance Description

a. User/Operator Maintenance. User/operator maintenance will consist only of preventive maintenance checks and services (PMCS) routinely performed on system hardware as specified in contractor maintenance support and vendor-supplied equipment manuals/publications. PMCS tasks include visual equipment inspection, the routine cleaning of exterior components, tightening and adjusting cables, removing dirt and dust from and in the vicinity of the hardware. All system support and sustainment for MTS will be performed by existing organizations in accordance with the prescribed command maintenance and supply policy.

b. Vendor/OEM Maintenance. MTS hardware is procured with an established vendor/OEM maintenance warranty period. Warranty period maintenance will be performed in accordance with the appropriate procurement/warranty contract. Once equipment warranties have expired, the post-warranty period begins. The

post-warranty system maintenance support will be provided through contracted vendor/OEM maintenance for the life of the system. Both warranty and post-warranty vendor/OEM maintenance may include on-site procedures or mail-in or a combination of both.

#### 4.1.2.2. Repair Procedures

##### 4.1.2.2.1 Organizational Level Maintenance.

a. In addition to performing PMCS on the hardware, the MTS user/operator, upon recognizing that the system is not functioning properly, will perform diagnostics or troubleshooting procedures authorized for the system. If the problem continues, the user/operator will call the supporting S-6. The user/operator will also notify the Combat Service Support Automation Management Office/Information Management Officer (CSSAMO/IMO) for support in resolving the problem. The S-6 will assist the operator in troubleshooting the system to determine the source of the problem (hardware or software). Where the problem exceeds S-6 capabilities, the S-6 will call the CSSAMO/IMO for assistance in troubleshooting to the Line Repairable Unit (LRU) level. If it is determined by the S-6 or CSSAMO/IMO that a hardware or software problem exists that cannot be telephonically resolved, the CSSAMO/IMO will log the problem into the maintenance log and notify the unit to the DSU SSA/ISSA. The following procedures will be followed:

(1) The unit operator will complete DA Form 2404/DA Form 5988-E or DA Form 2407 in accordance with DA PAM 738-750, The Army Maintenance Management System (TAMMS), identifying the faulty condition and the status provided by the operator diagnostics or the failure symptom at the time of failure. In addition to the information outlined in DA PAM 738-750, the following information must be annotated on the DA Form 2404/DA Form 5988-E.

(a) The serial number and type of LRU (e.g., computer, printer, or monitor).

(b) Name of manufacturer.

(c) Symptoms of the failure and results of the diagnostics or troubleshooting procedures.

(d) Serial number of the failed LRU.

(2) The user/operator prepares the LRU for evacuation to the supporting DSU SSA/ISSA.

(3) The organizational supply personnel will prepare, in accordance with DA PAM 710-2-2, Supply Support Activity System: Manual Procedures, a DA Form 2765-1, Request for Turn-in, and another DA Form 2765-1, Request for Issue.

(4) The unit user/operator will pack the failed LRU in its transit case and take the failed LRU to the supporting DSU SSA/ISSA for exchange.

f. After exchanging the LRU at the DSU SSA/ISSA, the unit user/operator will repack the transit cases and return the LRU to the unit. **It is the responsibility of the using unit to insure that all property book changes are accomplished.**

#### 4.1.2.2.2 DSU SSA/ISSA Maintenance Procedures

a. The supporting DSU SSA/ISSA will accept the LRU from the unit with a properly completed DA Form 2765-1 and DA Form 2407 or DA Form 5888-E and then provide the unit a replacement LRU from the SCX.

b. The supporting DSU SSA/ISSA will process the turn-in, record the demand, and process the item LRU exchange in accordance with the SCX (repairable exchange) procedures.

c. The supporting DSU SSA/ISSA personnel will review the DA Form 2407/DA Form 5988-E, Maintenance Request, in accordance with DA PAM 738-750, TAMMS, for the failed LRU, describing the failure. In addition to the information outlined in DA PAM 738-750 the following information must be annotated on the DA Form 2407/DA Form 5988-E:

(1) The transmitter, laptop, printer, mobile computer (V2) or handheld/palmtop computer (V1).

(2) The serial number and part number and type of LRU (e.g., laptop, printer, mobile computer).

(3) Manufacturer of the failed item.

(4) Symptoms of the failure and results of the diagnostics or troubleshooting procedures.

(5) Serial number of the failed LRU.

d. The DSU SSA/ISSA personnel will contact the vendor/OEM as to warranty/Post-warranty guidance or repair action. The supporting DSU SSA/ISSA personnel will provide the equipment with the DA Form 2407/DA Form 5988-E to the vendor/OEM for on-site or mail-in repair. The supporting DSU SSA/ISSA personnel will maintain a log of equipment turned in for vendor/OEM repair.

e. When the LRU is repaired/replaced by the vendor/OEM the supporting DSU SSA/ISSA personnel will return the LRU to SCX stockage. The DA Form 2407 will be annotated that the defective equipment was replaced with a like operational item. The nomenclature and serial number of the defective item and its replacement will also be recorded on the DA Form 2407.

f. Turn-in and issue procedures will be in accordance with AR 750-1, Army Materiel Maintenance Policy and Retail Maintenance Operations, Maintenance of Automatic Data Processing Equipment.

g. The PM MTS is the official item manager for all replaced MTS or "at the end of Life cycle" system equipment and will provide disposition instructions regarding equipment disposal.

#### 4.1.3 SCX Stockage

a. SCX is composed of COTS/NDI MTS system LRUs, including their associated peripheral equipment, used to operate or support tactical STAMIS applications.

b. The SCX is pre-positioned at the DSU SSA/ISSAs as complete class VII systems, less cables and expendables, to provide direct exchange support.

4.1.4 Software Maintenance. Upon recognizing that the system is not functioning properly, the user/operator will perform only authorized diagnostics or troubleshooting procedures to determine malfunction cause. If there is an indication of a software problem, the user/operator should call the system support representative at the supporting S-6/CSSAMO or other designated organization. On request, the S-6/CSSAMO can assist the unit operator in determining if a malfunction is a hardware or software problem. If required, the S-6/CSSAMO personnel can call the COMTECH Mobile DataCom Corporation Help Desk at 888-428-2101 for assistance. If the Help Desk determines that a problem cannot be resolved through telephonic means the caller will be informed of equipment disposition instructions.

4.1.5 Expendable Supplies. Replacement consumable and expendable supplies for centrally procured hardware will be acquired by the using organization.

4.2 Warranties. COTS/NDI hardware will be procured with an established warranty period in accordance with the appropriate procurement contract. Warranty periods may be extended through coordination with the Government and the contractor. Warranty information for specific hardware and contract will be addressed in Appendix 9.5 - Warranties.

4.2.1 Nomenclature. Individual system components are covered under the warranty provisions of the contract(s) identified in paragraph 4.2.10, below. The MTS hardware configuration nomenclature is outlined as Computer Set, Digital: AN/UYQ-90 (MTS).

4.2.2 National Stock Number (NSN). The NSNs for the MTS ADPE is as follows:

- a. Computer Set, Digital, AN/UYQ-90 (V)3, Control Station  
NSN: 7010-01-476-0934
- b. Computer Set, Digital, AN/UYQ-90 (V)2, Mobile Unit, Vehicle Mounted  
NSN: 7010-01-476-0935
- c. Computer Set, Digital, AN/UYQ-90 (V)1, Mobile Unit, Hand Held  
NSN: 7010-01-476-0936

4.2.3 Commodity Office, Address, and Telephone Number. B16. U.S. Army Communications - Electronics Command, Ft Monmouth, NJ, 07703-5000. Commercial: (201) 532-8517, DSN 992-8517.

4.2.4 Level of Warranty Claim Actions Related to the Maintenance Allocation Chart (MAC). Not Applicable.

4.2.5 Warranty Duration. Warranty durations for the MTS hardware are outlined in Appendix 9.5 - Warranties.

4.2.6 Warranty Usage and Operation Limits. Warranty usage and operation limits for the respective hardware contracts are outlined in Appendix 9.5 - Warranties.

4.2.7 Warranty Publication and Date. The MTS hardware warranty publication and date is established by the procurement contract.

4.2.8 Extended Storage Allowances. Not applicable.

4.2.9 Special Storage Requirements. Not applicable.

4.2.10 Contract Numbers. The contract number for the MTS hardware is: DAAB15-99-D-0014

4.2.11 Contractor's Federal Supply Code for Manufacturers (FSCM).  
Contractor's FSCM for the MTS hardware are as follows:

COMTECH Mobile Datacom Corporation - Cage Code 04NA3

4.2.12 Listing of Servicing Dealers. A listing of all service dealers (vendors), telephone numbers and warranty usage and operation limits is found in Appendix 9.5 - Warranties.

4.2.13 Warranty Data Plate Location with Explanation of Abbreviated or Condensed Data. A warranty data plate is not attached. The DD Form 250 signed upon acceptance signifies the commencement of the warranty period.

4.2.14 Components with Different Warranty Parameters. All components of the MTS system are fully covered under the warranty. See Appendix 9.5 for warranty information.

4.2.15 DA PAM 738-750 or DA PAM 738-751. Procedures in DA PAM 738-750, TAMMS are not applicable to warranty administration of the MTS ADPE. Warranties managed under this publication are purchased warranties managed by an installation Warranty Coordinator (WARCO).

(1) The warranties provided with the centrally procured COTS/NDI ADPE are Trade Practice Warranties included in the basic price of an item, and as such, are not managed by a WARCO.

(2) The warranty procedures outlined are to be used to provide service at the point of failure, to the maximum extent possible, from the OEM or vendor.

4.2.16 Contractor Commitments, Warranties, and Representations

(1) Any written commitment by the contractor, within the scope of the applicable hardware contract, shall be binding upon the contractor. Failure to fulfill any commitment shall render the contractor liable for liquidated or other damages due the Government under the terms of the contract. Written commitments include:

(a) Any warranty or representation made by the contractor in the proposal as to hardware or software performance, total system performance, and other physical, design, or functioning characteristics of a machine, software package or system, or installation date.

(b) Any warranty or representation made by the contractor concerning the characteristics or items described above made in any publications, drawings, or specifications accompanying or referred to in a proposal.

(c) Any modification of, or affirmation or representation to the above, which is made by the contractor in or during the course of negotiations, whether or not incorporated into a formal amendment to the applicable proposal.

(2) Prior to the expiration of the warranty period, whenever equipment is shipped for replacement purposes, the contractor will bear all applicable costs.

(3) The warranty will not apply to maintenance required due to fault or negligence by the Government.

4.3 Support Equipment and Test, Measurement, and Diagnostic Equipment (TMDE)

4.3.1 Special Tools and Tool Sets. There are no special tools and tool sets required to support the MTS hardware.

4.3.2 Common Tools and Tool Sets. Common tools required for maintenance (i.e., screwdrivers) should be on hand at the operator organizational maintenance activities supporting the MTS equipment. Shortages will be handled in accordance with Army and local installation supply procedures.

4.3.3 Special TMDE (to include special calibration equipment). Not applicable. No additional TMDE or special tools and test equipment (STTE) are required.

4.3.4 Test Program Sets for Special TMDE. Not applicable. Test program sets are not required.

4.3.5 Common TMDE (to include calibration equipment). Not applicable.

4.3.6 Test Program Sets for Common TMDE. Not applicable. Test Programs Sets are not required.

4.3.7 Performance Monitoring and Maintenance Indicators. The vendor of the MTS system will report failure data on a monthly basis. Failure data will be interpreted and used to predict failure trends, identify causes of failures, and establish/manage spare parts/STAMIS SCX stockage levels.

4.3.8 Special Purpose Kits. Not applicable. No special purpose kits are required for MTS.

4.3.9 Other Support Equipment. Not applicable.

4.3.10 Interim Substitute Support Equipment. Not applicable. Interim substitute support requirements are not anticipated.

4.3.11 Local Fabrication Requirements. Not applicable. Local fabrication will not be required in support of the MTS.

4.4 Supply Support. The PM MTS and SEAT will coordinate supply support to ensure hardware equipment, and supplies are on hand to meet implementation and subsequent operational needs. Using units will carry all equipment to their supporting DSU for repair or exchange. The supply support concept also incorporates the following:

a. Using units will requisition common PC supplies if required (e.g., disks, magnetic tapes, paper, batteries etc.) through normal supply sources, or through local purchase.

b. Under the maintenance concept, the DSU will be responsible for providing replacement items to the using unit. Use of the DSU is expected to reduce the costs of holding an inventory of parts that become obsolete quickly because of rapid technological advancement.

c. The MTS maintenance concept is not expected to adversely affect unit readiness or manpower.

4.4.1 Master Support List. PM MTS and PO TACMIS will identify those items that are to be provided as spare/repair parts for the MTS fielding. These items will be identified as initial issue spare/repair parts and outlined in the MOA.

4.4.2 Components of End Item (COEI) List. Appendix 9.7 - Components of End Item List identifies the COEI for the MTS ADPE. This portion of the MFP is

for informational purposes only, and does not authorize requisition of components. These items are COEI, but are removed and separately packaged for transportation or shipment. As COEI, these items must be with the end item whenever it is issued or transferred between property accounts.

4.4.3 Basic Issue Items (BII) List. Appendix 9.8 - Basic Issue Items List lists the BII for the MTS Hardware. This portion of the MFP is for informational purposes only, and does not authorize requisition of these items. BII are identified as essential items required to be available for operator/crew operation and support of a major end item. BII are authorized for use with a major end item, but are not part of the end item engineering drawing configuration.

4.4.4 Additional Authorizations List (AAL) Items. Appendix 9.9 - Additional Authorizations List lists the AAL items for the MTS Hardware. This portion of the MFP is for informational purposes only, and does not authorize requisition of these items. AAL items are separately authorized. AAL items are not issued as part of the major end item and are not listed on the end item engineering drawings as part of the end item NSN configuration. AAL items do not have to accompany the end item at all times, however, AAL can be mission essential support items.

4.4.5 Float Quantities. The MTS **will not** be supported with operational readiness floats (ORF). Additionally, MTS **will not** be supported with Rotational Stock at the National Training Center (NTC) or Joint Readiness Training Center (JRTC). Units deploying to NTC/JRTC will bring their issued MTS hardware to NTC/JRTC from home station. Selected vehicle assets will be outfitted with A-Kits for mounting MTS Mobile Station (V)2 hardware at NTC only. Units are encouraged to make coordination with NTC staff personal regarding the availability of NTC vehicles with pre-mounted Mobile Station A-Kits prior to deployment to NTC.

4.4.6 Basic Sustainment Materiel (BSM). BSM consisting of normal PC related supplies, (e.g., labels, disks, paper, etc.) are required to operate MTS computer hardware in a field environment.

4.4.6.1 Petroleum, Oils, and Lubricants. Not applicable.

4.4.6.2 Other Bulk Supplies. Not applicable.

4.4.6.3 Ammunition Requirements. Not applicable.

4.4.7 Plans for All Replaced and Displaced Equipment and Materiel. MTS does not replace or displace any equipment or materiel.

4.4.8 Evacuation Procedures. The established maintenance structure provides for required movement of systems/components.

4.4.9 Method of Distribution. MTS fielding is in priority for digitized items per the DA DCSOPS designated plan for unit conversion to digitized design.

4.5 Transportation and Transportability. The MTS application is designed to operate on transportation assets/TWVs. MTS can be transported in unit organic transportation. The system can be transported by all modes of military/civilian transportation including air, water, rail, and roadway. Transit cases are provided to facilitate deployment and equipment protection in transit as required.

4.5.1 Transportability Guidance and Procedures (AR 70-47). The MTS has no transportability limitations. When not installed in a TWV, MTS should be

contained in a transit case as provided at initial issue to protect the device from unnecessary shock and foreign matter contamination.

4.5.2 Security-in-Transit. Not applicable.

#### 4.6 Packaging, Handling, and Storage

4.6.1 Packaging. TOE units will be issued transit cases for MTS hardware. The use of transit cases decrease the risk that the hardware will be damaged during movement or exposure to the elements. Maximum use should be made of the packaging material in which the equipment was originally received. Should the original transit case packaging material become unusable or is absent, units will ensure that packaging material is replaced with suitable materials before storage or transit of equipment.

4.6.2 Handling. MTS hardware in transit cases may be transportable as containerized or palletized cargo for shipment via commercial or Government conveyances, with appropriate blocking, bracing, and other packaging requirements that conform to Government acceptable practices.

4.6.3 Storage. MTS will be stored in a general purpose warehouse or tentage that provides protection from the outside elements. The system ADPE should be kept in the transit cases in which the equipment was originally fielded. The storage temperature range is -25 to +150 degrees Fahrenheit. The storage humidity range is 10 to 95 percent.

#### 4.7 Technical Documentation

4.7.1 Technical Manuals. Documentation to support system operation and training requirements will be developed by the system developer who in turn will publish the appropriate user manual(s) for MTS. Evaluation criteria for these publications are established by DOD, DA, and TRADOC regulations/publications. Appendix 9.11 - Technical Manuals will list all applicable manuals as they become available. These include:

a. MTS End User Manuals (EUMs). The EUMs will provide step-by-step procedures for the operation of the system hardware. They will be designed for the operators who must accomplish a wide variety of tasks in the entry of data and specification of outputs.

b. Users Manuals (UMs). The UMs will contain more detailed information as to the file structures, formats, tables, processes, and procedures. The manual is designed for the supervisor/manager, system administrator, and system support personnel.

c. Commander's Guide. This guide will familiarize commanders and supervisors/managers with the types of information available from the MTS system. It will assist the commander in learning how to utilize the system as a management tool via output reporting. COTs manuals developed by the OEM may also be used. Evaluation criteria for these publications are established by DOD, DA, and TRADOC publications.

4.7.2 Supply Manuals and Bulletins. Not applicable. There are no Supply Bulletin number or storage serviceability standard requirements.

4.7.3 Camouflage Pattern Painting Requirements. Not applicable. The MTS system will not be camouflage painted.

4.7.4 Instruction Cards and Placards. Any special labels, instruction cards, or placards required will be supplied with the equipment and/or appropriate training materials.

4.7.5 Inspection, Test, and Calibration Procedures. Not applicable.

4.7.6 End Item/Weapon System Environmental Effects (AR 20-1)

a. Noise levels are within standards set in Military Standard (MIL-STD) 1474D.

b. No radioactive materiel is used in the MTS ADPE.

c. The System Safety and Health Hazard assessment tasks included as part of the System Safety Program, in accordance with MIL-STD-882, are the Safety Assessment Report, the System Safety Design Verification Checklist, and the Environmental Impact Analysis Worksheet.

d. A safety release will be completed prior to commencement of all MTS testing.

(1) The Safety and Health Data Sheet for the MTS will be available prior to Milestone III.

(2) The Health Hazard Assessment letter, dated 30 May 2000, concluded that there are no apparent health hazards associated with the operation and maintenance of the system.

(3) Record of Environmental Consideration, dated 19 June 2000, concluded the item is not expected to result in a significant adverse impact on the quality of the human environment, nor is it expected to be environmentally controversial.

4.7.7 Modification Work Orders. Modification Work Orders are not in effect.

4.7.8 Transportability and Transportation Guidance. Transportability and/or transportation TM are not required for MTS.

4.7.9 Demilitarization and Explosive Ordnance Demolition (EOD). The MTS will not require demilitarization or EOD procedures.

#### 4.8 Facilities

4.8.1 Mobile and Fixed Facilities. All of the facilities requirements are known at this time. Existing facilities will be used for new equipment training and fielding. Government facilities will be used where possible. Classrooms with adequate electrical connections for computers are required. There are no projected new or modified facilities requiring coordination with the Corps of Engineers. Existing training, fielding, and NET facilities should be adequate.

4.8.1.1 Physical Security. AR 380-19, Information Systems Security, prescribes policies and provides guidance for the security of automated systems. Appendix 9.18, Classified Information and Security, will provide additional details.

4.8.1.2 Garrison Site Layout. To operate in garrison, the commercial power used should be a dedicated single phase, 15 Amp 3 wire circuits for MTS hardware. The circuit should be terminated with a duplex receptacle with no other appliances (coffee pots, microwave ovens, radios, lights, etc.) connected. The receptacle should be within six feet of the MTS.

4.8.2 Environmental Controls. Environmental controls presently in place, supporting similar communication systems, will accommodate the MTS hardware.

4.8.3 Site Activation and Preparation. The MACOM will have the responsibility to survey, modify, and ensure facilities are ready for the MTS implementation.

4.8.4 Ammunition Storage. Not applicable.

#### 4.9 Manpower and Personnel Requirements

##### 4.9.1 Manpower and Personnel

###### 4.9.1.1 Tables of Organization and Equipment (TOEs) and Tables of Distribution and Allowance (TDAs)

a. PM MTS has compiled MTS Total Asset Visibility (TAV) Basis of Issue (BOI) and Qualitative and Quantitative Personnel Requirements Information (QQPRI) data. This data was submitted through AMC to USAFMSA for approval and processing of TOEs and TDAs.

b. Table 4.9-1 outlines the BOIP status to date.

Table 4.9-1 BOIP Status

BOIP NO.	DATE	LIN	NOMENCLATURE
T069AB	14 July 00	Z90126	COMPUTER SET DIGITAL: AN/UYQ-90 (V)3 (MTS CONTROL STATION CONFIG)
T069AA	14 July 00	Z90125	COMPUTER SET DIGITAL: AN/UYQ (V)2 (MTS MOBILE UNIT, VEHICLE MOUNTED CONFIG)

4.9.1.2 Manpower Requirements. There is no requirement for additional manpower to support the MTS.

4.9.1.3 Personnel Requirements. The MTS will be operated by personnel currently assigned to those organizations receiving each configuration of equipment. Enlisted personnel skill requirements are identified in tables 4.9-2, 4.9-3, and 4.9-4.

Table 4.9-2 Enlisted Personnel Skill Requirements (MTS)

MOS	DESCRIPTION	GRADE
	<b>ENLISTED</b>	
13M	MULTIPLE LAUNCH ROCKET SYSTEM CREWMEMBER	E3-E7
27M	MULTIPLE LAUNCH ROCKET SYSTEM REPAIRER	E3-E7
31U	SIGNAL SUPPORT SYSTEMS SPECIALIST	E3-E8
35E	RADIO/COMSEC REPAIRER	E3-E6
45B	SMALL ARMS/ARTILLERY REPAIRER	E3-E5
46Q	JOURNALIST	E3-E7
52D	POWER GENERATION EQUIPMENT REPAIRER	E3-E6
55B	AMMUNITION SPECIALIST	E3-E9
55D	EXPLOSIVE ORDNANCE DISPOSAL SPECIALIST	E3-E9
57E	LAUNDRY AND SHOWER SPECIALIST	E3-E9
63B	LIGHT-WHEEL VEHICLE MECHANIC	E3-E8
63H	TRACK VEHICLE REPAIRER	E3-E7
63J	QUARTERMASTER AND CHEMICAL EQUIPMENT RPR	E3-E5
63S	HEAVY-WHEEL VEHICLE MECHANIC	E3-E5
63W	WHEEL VEHICLE REPAIRER	E3-E5
71M	CHAPLAIN ASSISTANT	E3-E9
73C	FINANCE SPECIALIST	E3-E7
74B	INFORMATION SYSTEMS OPERATOR/ANALYST	E3-E7
76J	MEDICAL SUPPLY SPECIALIST	E3-E9
77F	PETROLEUM SUPPLY SPECIALIST	E3-E9
77W	WATER TREATMENT SPECIALIST	E3-E7
88H	CARGO SPECIALIST	E3-E7
88K	WATERCRAFT OPERATOR	E3-E7
88M	MOTOR TRANSPORT OPERATOR	E3-E7
88N	TRANSPORTATION MANAGEMENT COORDINATOR	E3-E7
91A	MEDICAL EQUIPMENT REPAIRER	E3-E9
91B	MEDICAL SPECIALIST	E3-E9
92A	AUTOMATED LOGISTICAL SPECIALIST	E3-E8
92M	MORTUARY AFFAIRS SPECIALIST	E3-E9
95B	MILITARY POLICE	E3-E9

Table 4.9-3 Commissioned Officer Personnel Skill Requirements (MTS)

MOS	JOB DESCRIPTION	COS
13A	FIELD ARTILLERY, GENERAL	01-03
15D	AVIATION, LOGISTICS	01-03
31A	MILITARY POLICE	01-03
38A	CIVIL AFFAIRS, GENERAL	01-03
56A	COMMAND AND UNIT CHAPLAIN	01-03
88A	TRANSPORTATION, GENERAL	01-03
88B	TRAFFIC MANAGEMENT	01-03
88C	MARINE AND TERMINAL OPERATIONS	01-03
88D	MOTOR/RAIL TRANSPORTATION	01-03
90A	LOGISTICS	01-03
91A	ORDNANCE, GENERAL	01-03
91B	MAINTENANCE MANAGEMENT	01-03
91D	MUNITIONS MATERIEL MANAGEMENT	01-03
91E	EXPLOSIVE ORDNANCE DISPOSAL	01-03
92A	QUARTERMASTER, GENERAL	01-03
92B	SUPPLY AND MATERIEL MANAGEMENT	01-03
92F	PETROLEUM	01-03

Table 4.9-4 Warrant Officer Personnel Skill Requirements (MTS)

MOS	JOB DESCRIPTION	WOS
251A	DATE PROCESSING TECHNICIAN	W1-W2
910A	AMMUNITION TECHNICIAN	W1-W2
915A	UNIT MAINTENANCE TECHNICIAN (LIGHT)	W1-W2
915D	UNIT MAINTENANCE TECHNICIAN (HEAVY)	W1-W2
915E	SUPPORT MAINTENANCE TECHNICIAN	W1-W2

4.9.1.4 Federal Civil Service Personnel. It has not yet been determined whether Federal Civil Service Personnel will be required to operate the MTS system.

4.9.1.5 Contractor personnel will operate the satellite operations center station, and will maintain hardware and software. Training will be provided by the PM.

4.9.1.6 Host nation personnel, if required, will train with U.S. Soldiers during professional development training.

#### 4.9.2 Training

##### 4.9.2.1 Assumptions

a. Training will be embedded into the prime system to the maximum extent possible (with hooks to the multimedia training package). This training will be supported by a task list, program of instruction, lesson plans/story boards, end user manuals and a training CD-ROM that can be used on any Windows

based operating system (not the prime system) to assist units in conducting sustainment training. Any tasks that cannot be embedded or included as part of the multimedia package will be documented in paper-based training to allow the system to be trained in the unit.

b. MTS hardware will satisfy the prime and multimedia training software and training database requirements.

c. The operator will receive training for target hardware and the application software.

d. A special Military Occupational Specialty (MOS), Additional Skill Identifier (ASI), or civilian career field is not authorized for system operators/users.

e. No increase in personnel will be required to operate or support the system.

f. Each proponent school will be responsible for training their respective enlisted MOS's and officer branches.

g. Target hardware is available at the training location when training begins.

h. Training will not cause an increase in security requirements for operators or maintainers; the system will be unclassified.

i. Funding for the development of training products will be available.

j. Multimedia training materials will be ready from the start of the training process, and will be updated by the PM as required.

k. Contractor support for satellite operations center station operation and for software / hardware maintenance will be available for the life of the system.

l. Manpower and other resource intensive tasks will be reduced through simplified system design.

m. Training resources will be reduced by a thorough task analysis process.

n. Manpower and Personnel Integration (MANPRINT) issues will be eliminated or reduced to an acceptable level.

#### 4.9.2.2 Training Concept

4.9.2.2.1 General. MTS training development will be in accordance with the systems approach for managing the development and integration of training for new systems (TRADOC Reg. 350-70). The PM will do a front end training analysis to develop a general training concept, a training Master Task List (MTL), and identify the Terminal Learning Objectives and Enabling Learning Objectives to support each task. CASCOW will assemble subject matter experts (SME) that will subsequently review the analysis and provide approval of the MTL, the PM will produce a Task Selection Matrix (TSM), critical tasks will be identified for training, and methods of training will be determined. An Instructional Media Design Report (IMDR) (details the flow, appearance, and subject matter of the interactive courseware) will be completed and training scenarios reflecting operational environments will be developed. From the approved TSM, tests for each task will be developed, draft Programs of Instruction (POI), Lesson Plans (LP) / Storyboards, Handouts (HO), Practical

Exercises (PE), and a Training Database will be developed. As the system matures, a Detailed Task Selection Matrix will be developed to identify step-by-step procedures required to accomplish each task. Draft Training Packages and supporting documentation will be tested and adjusted prior to the Operational Test (OT). SME support will be provided / coordinated by USA CASCOC throughout the development process. The development contractors will visit and/or coordinate directly with designated POC.

4.9.2.2.2 Training Development. Training courseware will be developed for initial and sustainment training of operators, instructor and key personnel, and supervisors / managers. Doctrine and Tactics training will also be developed. Training concepts will be developed to address specific training requirements to include: institutional training at U. S. Army schools, distance learning, New Equipment Training (NET) Teams, and multimedia embedded training (ET). The requirement for ET will be satisfied by capabilities integral to or appended to the system. Individual training capabilities will be fully implemented through the system software help features, electronic references, and courseware, either integrated or appended. Required functional element and force level training will be implemented as appended courseware and umbilical networked simulations.

#### 4.9.2.2.3 MTS Training Types/Methods

##### 4.9.2.2.3.1 Multimedia Training

a. Multimedia Training will be the primary method of training MTS for the Army. The Multimedia Training will be on a separate CD ROM that must be periodically updated to reflect the changes to the system. It will satisfy the majority of the requirements for extension, sustainment, collective, and Instructor and Key Personnel (IKP) training for the operator and supervisor/manager personnel. It will allow the use of the system as a training device on a non-mission impact basis for the active and reserve component forces.

b. The prime system will contain a Training Menu Option which will allow the selection for training and training support functions and will replicate the prime system. Training will address the user by name based on log-in information and will provide the supervisor with the ability to manage the training environment to include establishing training requirements, selecting specific material for students, setting performance criteria, and producing training reports and comprehensive end of course tests. Interactive multimedia training is the required medium to train and evaluate the user's performance.

c. The Multimedia Training will consist of two major elements: training and help. Multimedia Help will be accessible from two different means: Menu Selectable Help and Context Sensitive Help (to at least 4 levels). As much as possible, COTS software with help utilities will be incorporated. The Multimedia Training (CD ROM) will include as a minimum an Operator Course and a Supervisor/Manager Course. Documentation and training materials/data base will be provided IAW appropriate DOD, Army, and TRADOC directives to support the system. Multimedia products will be developed in accordance with TRADOC Pam 350-70-2, Multimedia Courseware Development Guide, which provides detailed guidance and assistance to those involved in the development of ET. A multimedia training package will be developed consisting of:

(1) Embedded Training (ET). MTS will have hooks embedded into the prime system software (embedded training) so the user can obtain access to the training system and receive training by clicking on the hyper text, go to training, and return to the work area (training itself may be on CD-ROM). This will be an option load with the prime system.

(2) Stand-Alone Multimedia Training. The training package will also be capable of operating separately; it will be MTS specific and can be used on any compatible Windows operating system computer with a CD-ROM drive and sound card. Training screens will be identical to the prime system screens and help capabilities. It will provide the capability to conduct initial or sustainment training.

(3) Paper-Based Training. Paper-based training will be developed for designated tasks and those tasks not identified for ET. These packages must contain approved task lists, Programs of Instruction (POIs) and Lesson Plans (to include handouts, slides, practical exercises and tests) to assist the unit in conducting sustainment training.

4.9.2.2.3.2 Instructor Key Personnel Training (IKPT). IKPT is provided to instructors and key personnel to facilitate training development of new systems or equipment. The PM MTS will provide IKPT for Army representatives. IKPT will be conducted at the earliest practical date to allow sufficient time for TRADOC to integrate the training into the appropriate courses.

#### 4.9.2.2.3.3 NET

a. NET will be required during fielding of the system. The Materiel Developer will provide a system Training Support Package (TSP) to support NET during the fielding of the MTS and unit sustainment training, if distant learning is impractical. All training support materials will be concurrently developed and delivered in draft prior to test player training for the operational test and evaluation. The Materiel Developer will examine NET delivery by Distance Learning.

b. The system extension training will be implemented by PM MTS through a memorandum of understanding with each gaining command and site on how the extension training will be conducted. This coordination will provide guidance on when and where the training will be accomplished.

c. The MTS system will be fielded with a multimedia training capability. Other customary TRADOC training products such as printed educational and visual aids may be necessary for institutional training. The target MTS hardware will be used to train operators, maintainers, and supervisors. Specific general support requirements will be identified in the SMMP, Training Support Requirement (TSR), and STRAP updates.

4.9.2.2.3.4 Institutional Training. The primary method for training MTS will be through the utilization of the Multimedia CD-ROM. U.S. Army schools will conduct MTS training approved for their level of instruction. Schools will use the training package being fielded with the system.

4.9.2.2.3.5 Unit/Sustainment Training. Multimedia ET will be provided with the system. Training CD-ROM disks will also be provided. Unit training will provide the replacement operators the initial introduction to the MTS system. The ET courses will be developed to allow for training of complete courses, modules of courses, selected processes, or management tasks. A complete copy of the system extension training package for those tasks not selected for ET, including POI, Lesson Plans, and any other paper-based material, will be provided to units for unit sustainment training. Commanders of TOE/TDA units are responsible for conducting unit sustainment training, as required, for initial training of the operator and maintenance of their proficiency.

a. NET will be required during fielding of the system. The Materiel Developer will provide a system TSP to support NET during the fielding of the MTS and unit sustainment training, if distant learning is impractical. All training support materials will be concurrently developed and delivered in

draft prior to test player training for the operational test and evaluation. The Materiel Developer will examine NET delivery by Distance Learning.

b. The system extension training will be implemented by PM MTS through a memorandum of understanding with each gaining command and site on how the extension training will be conducted. This coordination will provide guidance on when and where the training will be accomplished.

c. The MTS system will be fielded with a multimedia training capability. Other customary TRADOC training products such as printed educational and visual aids may be necessary for institutional training. The target MTS hardware will be used to train operators, maintainers, and supervisors. Specific general support requirements will be identified in the SMMP, Training Support Requirement (TSR), and STRAP updates.

4.9.2.2.3.6 Distance Learning. Although multimedia embedded training will provide just-in-time training for system users, it also lends itself to using the same product for distance learning for new operators and for sustainment training. Distance learning technologies will be used to the maximum extent possible, using the same developed multimedia products.

4.9.2.2.3.7 Doctrine and Tactics Training (DTT). In addition to above, DTT will be included in Professional Development Training (i.e., commanders time, sergeants time, etc.) to ensure that all unit personnel are familiarized with system capabilities. The NET Team (NETT) members will not provide DTT to units receiving MTS. DTT will consist of an introduction to the system architecture, inputs, outputs, capabilities and effective management techniques. DTT will be provided to Commanders and Staff at each unit receiving MTS.

4.9.2.2.4 MTS Training Courses. Training courses being developed for MTS are discussed below.

4.9.2.2.4.1 Operator. Two versions of operator training will be developed, one for the fixed (control station) operator and one for the mobile operator (vehicle mounted and handheld). This course provides instructions to train the skills and knowledge necessary to operate the entire system and perform unit level maintenance tasks; and set up, activate, check out, operate and maintain the equipment. Operation of the tutorial will be included in the training.

4.9.2.2.4.2 Supervisor/Manager. System supervisors and managers will be provided training required to manage the system. This training includes a comprehensive overview of how MTS operates as a system, setting file parameters, an overview of the operating system commands that facilitate system management, security, and other functions not designed as operator tasks. In addition, this course will highlight tasks applicable for supervisors and managers to create, access and use daily and monthly management reports. The multimedia training for supervisor / managers will identify tasks and the sequence in which they must be accomplished by the operator. The supervisor / manager will have access to the operator embedded training at all times for management purposes. MTS input, system information management, and decision support aids will be included in the embedded training. Documentation will be developed with instructions explaining how to accomplish this training.

4.9.2.2.4.3 System Support. This course will be primarily designed to support the Combat Service Support Automation Management Office (CSSAMO) personnel in supporting and sustaining the system. Subjects will include a software and hardware overview, upgrading software and hardware, activating and deactivating users, installation of maps and communications architecture and equipment.

4.9.2.2.4.4 System/Database Administrator. System/Database Administrator Support and system maintenance services will be provided by contract support. Training materials will not be developed for these functions.

4.9.2.2.5 Training Devices. There are no known requirements for training devices or training simulators. All MTS training will be conducted utilizing the actual hardware/software utilized by system operators, maintainers, and supervisors/managers during system extension and individual and sustainment training. Hands-on communication and systems interface training will be accomplished at the work site using the actual equipment during the OJT/monitorship phase of the system extension.

4.9.2.3 Other Training. Not applicable.

#### 4.10 Training Equipment, Devices, and Aids

4.10.1 Training Materials. Training materials which differ from materials and supplies used in actual MTS operations are not required.

4.10.2 Training Aids. Training aids which differ from materials and supplies used in actual MTS operations are not required.

4.10.3 Training Data. Not yet available.

4.10.4 Training Devices. Training devices which differ from materials and supplies used in actual MTS operations are not required.

4.10.5 Training Equipment. Organizations receiving training must have sufficient hardware systems on hand and adequate facilities to conduct training.

#### 4.11 Computer Resources Support

4.11.1 Computer Support. The MTS hardware and software will be developed for interoperability with existing and projected military and commercial computer systems to include communications network systems.

a. The system will conform to DII COE specifications.

b. The MTS will comply with the Joint Technical Architecture/ATA and have an open system architecture to facilitate technology insertions and maximize adoption of joint standards and profiles.

4.11.1.1 Computer Resource Management Plan (CRMP). Not applicable. Because the MTS is not a weapon system, a CRMP is not required and will not be developed.

4.11.1.2 Built-in Test/Built-in Test Equipment (BIT/BITE). BIT is limited to the diagnostics embedded in the system. MTS is not weapon system and does not require additional computer resources support or a CRMP.

4.11.2 Post Deployment Software Support (PDSS). PDSS for the MTS will consist of hardware and software changes necessitated by system defects, doctrinal requirements, and user requests for system enhancements.

4.11.3 Changes to More Than 15 percent of the System Software. Proposed changes to system software will be documented via Engineering Change Proposal (ECP), DD-Form 1692, which will be reviewed, prioritized, and either approved, disapproved, or deferred for later action by the MTS Configuration Control Board (CCB).



## SECTION 5

### READINESS REPORTING REQUIREMENTS

5.1 Reporting Requirements. The MTS is readiness reportable.

5.2 Readiness Reporting Data (AR 220-1 and AR 700-138)

5.2.1 Pacing Item. MTS is not a pacing item.

5.2.2 AR 220-1 or AR 700-138 Reportable. The MTS is reportable under the provisions of AR 220-1 and AR 700-138. System Readiness/Not Available for Service Status will be determined as identified in the PMCS procedures.

5.2.3 Equipment Readiness Code (ERC). The MTS is ERC Code A.

## SECTION 6

### SAMPLE DATA COLLECTION

6.1 Data Collection. Sample data collection efforts under the provisions of AR 750-37 is not applicable to the MTS.

## SECTION 7

### SUPPORT REQUIRED FROM THE GAINING MACOM(s)

7.1 MACOM Support. Support required from the gaining MACOM(s) is provided in the MFAs at Appendix 9.1 - Agreements.

## SECTION 8

### SUMMARY

8.1 Objective. The objective of this MFP is to present a single, stand-alone document that consolidates the actions, schedules, and procedures required by the gaining commands and the fielding agent, PO TACMIS.

#### 8.2 System and Logistic Support Summary

##### 8.2.1 System Summary

a. The MTS is a military application of a commercial system that will allow movement control/management personnel and Commanders to track and communicate with TWVs.

b. MTS uses a two-way data communications system that provides users in a tactical/non-tactical environment the capability to send and receive position reports and text messages anywhere in the world, 24-hours per day. The system takes advantage of commercially available satellite communications services and low cost commercial off-the-shelf/non-developmental items (COTS/NDI) components to provide this capability.

c. MTS allows Commanders to monitor locations of vehicles and maintain two-way communications during various levels of conflict. MTS provides the ability to reroute supplies to higher priority needs, avoid identified hazards, and inform operators of unit location changes. This system also provides mobile or fixed data communications from single or multiple units.

##### 8.2.2 Logistics Support Summary

a. Maintenance. MTS system maintenance will consist of a combination of user/operator-level and vendor/original equipment manufacturer (OEM) supplied maintenance support. The MTS hardware is procured with an established warranty period in accordance with the appropriate procurement contract. During both warranty/post-warranty hardware maintenance periods, the MTS will be maintained under a two-level maintenance concept: user/operator-level and vendor/OEM contracted maintenance for the life of the system.

(1) Using unit operator personnel will perform authorized preventive maintenance checks and services (PMCS) and turn in all equipment requiring repair to their Direct Support Unit (DSU) Supply Support Activity/Installation Supply Support Activity (SSA/ISSA). Verification that the LRU is inoperable will first be obtained from the S-6 or CSSAMO before equipment turn-in to the DSU SSA/ISSA is transacted.

(2) The DSU SSA/ISSA personnel will receive/process equipment requiring exchange or repair. Once the defective equipment is received, it will be repaired by the vendor/OEM utilizing on-site or mail-in procedures or a combination of both. The location of maintenance will be transparent to the using unit as **the using unit will be provided with an operational replacement of the defective equipment from on-hand SCX**. Once the defective item is repaired or replaced by the vendor/OEM, it will be returned to the SCX stockage.

(3) SCX stockage will be maintained at the DSU SSA/ISSA at an eight percent ratio to support equipment for SCX.

b. Supply Support. The PM MTS and SEAT will coordinate supply support to ensure hardware equipment, and supplies are on hand to meet implementation and

subsequent operational needs. Using units will carry all equipment to their supporting DSU for repair or exchange. The supply support concept also incorporates the following:

(1) Using units will requisition common PC supplies if required (e.g., disks, paper, batteries etc.) through normal supply sources, or through local purchase. These items will be identified in the installation survey prior to extension/fielding of the MTS system.

(2) Under the maintenance concept, the DSU will be responsible for providing replacement items to the using unit. Use of the DSU is expected to reduce the costs of holding an inventory of parts that become obsolete quickly because of rapid technological advancement.

(3) The MTS maintenance concept is not expected to adversely affect unit readiness or manpower.

8.2.3 Life Cycle Support. The MTS will use COTS/NDI computers and related hardware from DoD standard requirements contracts. Maintenance will consist of a manufacturer's warranty and follow-on maintenance support provided through the vendor/OEM for the life of the MTS system.

SECTION 9  
APPENDICES

APPENDIX 9.1  
AGREEMENTS

## 9.1 Agreements

### 9.1.1 MFAs

a. A separate Materiel Fielding Agreement (MFA) is coordinated with each gaining Major Army Command (MACOM) as part of the initial fielding with that MACOM.

(1) These agreements document the formalized plans, policies, responsibilities, procedures, and schedules governing the fielding of the MTS to each respective MACOM.

(2) MFAs will be finalized with the commands listed in paragraph 1.4.2.1.

b. A sample of the MFAs is as an enclosure to this appendix. Completed MFAs will be included when received.

9.1.2 Sample MOA. The Memorandum of Agreement (MOA) outlines a detailed sequence of activities, procedures, and command responsibilities for fielding the system at each site. The MOA is developed during the IS.

a. It is a detailed fielding schedule and formally documents, with fact sheets, all actions required to be completed before the MTS fielding.

b. The body of the MOA lists understandings, agreements, general concerns, and major support and resource requirements.

(1) Enclosures to the MOA provide a calendar of events, general and STAMIS specific checklists, detailed training schedules, attendance lists from various meetings, and Fact Sheets on various issues.

(2) Fact Sheets detail specific concerns or problems and recommended actions to be taken before the MTS fielding.

c. MOAs are normally signed by the installation Commander, Chief-of-Staff, or persons of equivalent rank, STAMIS technical and functional team leaders, and the COI.

d. A sample MOA is outlined at an enclosure to this appendix.

MTS MFP  
Version 2.0 September 2000

ENCLOSURE 9.1-1

SAMPLE  
MATERIEL FIELDING AGREEMENT (MFA)

(SAMPLE)  
MATERIEL FIELDING AGREEMENT (MFA)  
BETWEEN  
PROJECT MANAGER GLOBAL COMBAT SUPPORT SYSTEM-ARMY  
AND  
(*gaining* MACOM)

1. PURPOSE

This MFA documents concurrence of the Project Manager Global Combat Support System-Army (PM GCSS-Army) and the (*gaining* MACOM) and is the primary governing document in the fielding of the Movement Tracking System (MTS).

2. SCOPE

This MFA becomes a part of the (final) Materiel Fielding Plan (MFP) when signed by the authorized representatives of the fielding command and the gaining command. It applies to fielding of the MTS to (MACOM) unless otherwise stated herein or until this MFA is superseded.

3. POLICY

Fielding of the MTS to (*gaining* MACOM) units will be accomplished using the Total Package Fielding methods and procedures of AR 700-142 as outlined in the MFP.

4. RESPONSIBILITIES

a. PM GCSS-Army will:

(1) Prepare the MTS Materiel Fielding Plan, incorporating this MFA. Copies of the final MFP will be furnished to (*gaining* MACOM) for distribution to the gaining units as final agreements are concluded. Changes and/or updates to the MFP are expected to occur and will be provided to (*gaining* MACOM) for distribution.

(2) Provide a Chief of Installation (COI) to coordinate the fielding/extension efforts between PM GCSS-Army, the gaining (*gaining* MACOM) units, and applicable contractor personnel.

(3) Conduct installation surveys to ensure the gaining units are prepared to receive the MTS.

(4) Monitor the hardware acceptance testing. Government acceptance will include a joint inventory, non-functional examination, and system burn-in/validation test.

(5) Coordinate new equipment transition/conversion training for the gaining units.

(6) Coordinate the extension of STAMIS software to the units with (*gaining* MACOM), STAMIS software developers, and functional proponents.

b. (*Gaining* MACOM) will:

(1) Appoint a (MACOM) single Point of Contact (POC) for the MTS extension.

(2) Provide facilities and services as required in the MFP.

(3) Accomplish the necessary site preparation as required in the MFP.

(4) Provide an on-site (*gaining MACOM*) representative(s) for each site fielding MTS.

(5) Provide gaining unit personnel to participate in:

(a) Deprocessing, inventory, acceptance, and handoff.

(b) Acceptance testing. This will include the accountable Property Book Officer (PBO) who will sign for the MTS ADPE.

(c) New Equipment Training (NET).

(6) Provide the MTS and supporting infrastructure status and utilization reports as required during the fielding extension process.

(7) Prepare a Mission Support Plan (MSP) and participate with the fielding and supporting commands in the coordination of the materiel requirements and supportability.

(8) Prepare and submit the Fielding Evaluation Report.

## 5. ACCEPTANCE

Upon completion of the user acceptance test and inventories of each MTS system by PM GCSS-ARMY and unit representatives, the unit PBO will accept and sign for the system. This signature acknowledges receipt of the system, and that the system is complete and operational. A copy of the PBO appointment orders and a signature card authorizing him/her to sign for and accept custody of the system must be presented to the PM GCSS-ARMY COI prior to signing for the system.

## 6. IMPLEMENTATION

This MFA will become effective upon signature by all parties. This agreement will be reviewed as required and may be amended at any time by mutual consent.

---

GAINING COMMAND

---

PROJECT MANAGER  
GCSS-ARMY

ENCLOSURE 9.1-2

(SAMPLE)  
MEMORANDUM OF AGREEMENT  
BETWEEN  
PROJECT MANAGER INTEGRATED LOGISTICS SYSTEMS,  
PRODUCT MANAGER MOVEMENT TRACKING SYSTEM,  
MACOM,  
AND INSTALLATION

SUBJECT: Movement Tracking System (MTS) Installation Survey.

1. Purpose: This Memorandum of Agreement (MOA) records actions required prior to and during the fielding of the MTS system. It documents agreements made between Project Manager Global Combat Support System-Army (PM GCSS-ARMY), Product Manager Movement Tracking System (PM MTS), MACOM, and Installation, ST.

2. References:

a. Message (MSG), PM GCSS-ARMY, SFAE-PS-RS, DTG XXXXXXZ MMM YY, Subject: Movement Tracking System (MTS) Installation Survey Briefing for Installation, ST, DD Mon YY.

b. MSG, PM GCSS-ARMY, SFAE-PS-RS, DTG XXXXXXZ MMM YY, Subject: Movement Tracking System (MTS) Installation Survey for Installation, ST, DD Mon YY.

3. Facts:

a. An Installation Survey briefing was conducted during the period DD-DD Mon YY at Installation, ST. It included functional briefings on the MTS system and information to be used by the installation in preparation for the upcoming System Extension.

b. An Installation Survey was conducted during the period DD-DD Mon YY at Installation, ST for the upcoming installation of computer systems and the subsequent extension of the MTS system.

4. Scope: This MOA is applicable to PM GCSS-ARMY, PM MTS, MACOM, and Installation, ST.

5. Understandings, Concerns, Agreements, Support, and Resource Requirements:

a. Major concerns of PM GCSS-ARMY are:

List all concerns of PM GCSS-ARMY in summary form here and cross reference to a MTS General Fact Sheet.

b. Major concerns of PM MTS are:

List all concerns of PM MTS in summary form here and cross reference to a MTS Fact Sheet.

c. Major concerns of Installation Name are:

List all concerns of the installation in summary form here and cross reference to an Installation Fact Sheet.

6. PM GCSS-ARMY will provide the following:

List all the items that PM GCSS-ARMY will provide here and cross reference to an Installation Fact Sheet.

7. PM MTS will provide the following:

List all the items that PM MTS will provide here and cross reference to an Installation Fact Sheet.

8. The MTS functional proponent will provide functional training on the MTS application to the appropriate Installation, ST functional office for the MTS.

9. Installation, ST and all signatory agencies must ensure actions noted in attached fact sheets, memorandums, and checklists are routed through the installation's MTS Point of Contact (POC). The MTS POC will monitor the status of all outstanding actions and ensure their completion in accordance with established milestones.

10. The personnel listed on the signature page agree that the information in Enclosure 1 through Enclosure X and this MOA are correct to the best of their knowledge.

11. This MOA is effective from DD Mon YY to the end of the MTS extension (Dates to be determined and approved with the installation prior to the beginning of the extension).

Enclosures  
(as required)

\_\_\_\_\_  
SIGNATORY NAME  
Signatory's Title

\_\_\_\_\_  
SIGNATORY NAME  
Signatory's Title

APPENDIX 9.2  
KEY CORRESPONDENCE

9.2 Key Correspondence. No key correspondence has been identified at this time.

APPENDIX 9.3  
ASSOCIATED PLANS

9.3 Associated Plans. Not Applicable.

APPENDIX 9.4

GAINING COMMAND FIELDING EVALUATION

9.4 Gaining Command Fielding Evaluation. All gaining commands will ensure that each unit receiving MTS will complete DA Form 5666-R, Gaining Command Fielding Evaluation. A sample copy of the form is at Enclosure 9.4.1.

ENCLOSURE 9.4.1

GAINING COMMAND FIELDING EVALUATION

<b>GAINING COMMAND FIELDING EVALUATION</b> <small>For use of this form, see AR 700-142; the proponent agency is ODCSLOG</small>				
FOR FIELDING OF				
1. SYSTEM NAME	2. SYSTEM MODEL NO.	3. LIN	4. NSN	5. FIELDING DATE
6. GAINING UNIT DODACC AND UI(Typed Name of Unit Commander)		7. SIGNATURE		8. EVALUATION DATE
9. MAILING ADDRESS				10. DSN NUMBER
<b>PART I - PREFIELDING COORDINATION</b>				
Check the appropriate box YES, NO, or N/A. Include short narrative below or on a separate sheet for each no answer.				
		YES	NO	N/A
11. Was the final MFP provided 8 months prior to fielding?		X	X	X
12. Was a fielding coordination meeting conducted at 7 months prior to fielding?		X	X	X
a. Was a coordination package/checklist provided and signed?		X	X	X
b. Was a materiel requirements list provided?		X	X	X
13. Was a joint supportability assessment conducted? If yes, when?		X	X	X
14. Were final deprocessing, inventory, and handoff sites and schedules verified? When?		X	X	X
15. Was the fielding delayed for any reason? If yes, explain.		X	X	X
<b>PART II - FIELDING OPERATIONS AND LOGISTIC SUPPORT</b>				
16. <b>Support and Test Equipment.</b>				
a. Were all the prescribed special and general purpose tools and test equipment available or provided to support the fielding?		X	X	X
b. Were prescribed TPS and OSE available or provided?		X	X	X
17. <b>Supply Support.</b>				
Were the following MRL items provided as agreed on?		X	X	X
(1) All end items including ASIOE and maintenance float?		X	X	X
(2) All components of the end items and BII?		X	X	X
(3) All spare/repair parts and special mission kits?		X	X	X
(4) Starter set of TMs, accounting documents, and instructions?		X	X	X
18. COMMENTS FOR "NO" ANSWERS				

DA FORM 5666-R, FEB 95

USAPPC V1.00

SAMPLE FORM

Electronic Version (FormFlow or PerFORM Flow) can be obtained at  
<http://web1.whs.osd.mil/icdhome/FORMTAB.HTM> or <http://www-usappc.hoffman.army.mil/forms/forms.html>

APPENDIX 9.5

WARRANTIES

## 9.5 Warranties

### 9.5.1 Warranty Duration

a. COTS/NDI hardware will be procured with an established warranty period in accordance with the appropriate procurement contract. Warranty periods may be extended through coordination with the Government and the contractor. Warranty information for specific hardware and contract is addressed in the following paragraphs.

b. All MTS components will be covered under a 36 month warranty from date of receipt (DD Form 250), signed at the central receiving point for that location. The warranty provider is:

COMTECH Mobile Datacom Corp  
19540 Amaranth Drive  
Germantown, MD 29874

COMM: (888) 428-2101 FAX: (301) 428-1004

9.5.2 Warranty Usage and Operation Limits. For units located in CONUS, Alaska, Hawaii, Germany, Korea and Southwest Asia (including Kuwait, Saudi Arabia, Bahrain and Quarter) equipment will be returned to service within seventy two (72) hours. Equipment located in other locations will be returned to a fully operational status or replaced with a fully operational unit within two hundred forty (240) hours. For the purpose of warranty, software or firmware will be considered equipment. The warranty may include on-site procedures or mail-in or a combination of both. If mail-in/carry-in procedures are provided, the Contractor shall bear all shipping and packaging costs both from and to Government sites. The Contractor shall be responsible for the equipment from time of shipment until safe return to the Government site.

#### 9.5.2.1 Warranty Assistance

a. The warranty provider will provide support via a local and/or toll-free telephone number(s) to users in the following areas of operations: CONUS, Alaska, Hawaii, Germany, and Korea. A telephone number will also be provided for all other world-wide users. A staffed telephone support service, answering machine service, email, World-Wide Web, and satellite message service during the Principle Period of Operation (PPO).

b. The PPO hours for CONUS, Alaska and Hawaii are Monday through Friday 0800 to 1700 local time, excluding U.S. Government holidays. The PPO for Germany and Korea is Monday through Friday 0800 to 1700, OCONUS local time, excluding Government holidays and OCONUS Host Nation Holidays. The warranty provider will provide answering service, email, World-Wide Web, and satellite message service to receive problem reports from users Outside of Principle Period of Operations (OPPO).

c. The OPPO hours for OCONUS, Alaska and Hawaii are Monday through Friday 1701 through 0759 local time and 24 hours a day Saturday, Sunday and U.S. Government holidays and OCONUS Host Nation holidays. Support personnel shall receive problem reports and attendant requests for assistance and perform the necessary actions to facilitate the timely resolution of reported problems. The support personnel shall be sufficiently proficient in spoken and written American English so that they can effectively communicate with users.

APPENDIX 9.6  
FIELDING SEQUENCE OF EVENTS

## 9.6 Fielding Sequence of Events

9.6.1 General. Fielding begins when HQDA decides that a STAMIS is ready to be deployed and integrated into active, reserve, and/or National Guard units of the Army. This may be the result of a Major Automated Information System Review Council (MAISRC) decision (e.g. "Milestone" decision) or by other direction within HQDA, as appropriate. The role of the COI in this process is to ensure a timely and successful transfer of the system including, but not limited to, procurement of hardware, delivery, testing, and hand-off to units/installations after successful completion of training and monitorship. Tables 9.6-1 through 9.6-3 depicts a typical fielding sequence of events (specific dates will be annotated when they have been coordinated).

Table 9.6-1 Fielding Sequence of Events (Preparation Phase)

EVENT	EVENT DURATION	RESPONSIBILITY	PARTICIPANTS
Send Message(s) to Product Community	D-120	Chief of Installation (COI)	Contractor Personnel PM MTS Representative(s) MACOM Representative(s) Installation Point(s) of Contact
Installation Survey (IS)	D-90	Chief of Installation (COI)	Installation Point(s) of Contact PM MTS Representative(s) Contractor Personnel MACOM Representative(s) Functional Proponent Representative(s)
Bill of Materials (BOM) Completed and Equipment Ordered	D-60	PM MTS	Contractor Personnel
Equipment Required Delivery Date (RDD)	D-7	PM MTS	Installation Point(s) of Contact Contractor Personnel

Table 9.6-2 Fielding Sequence of Events (Execution Phase)

EVENT	EVENT DURATION	RESPONSIBILITY	PARTICIPANTS
Equipment Inventory, Test, and Issue	D-3	Chief of Installation (COI)	Installation Point(s) of Contact PM MTS Representative(s) Contractor Personnel MACOM Representative(s) Functional Proponent Representative(s)
Begin New Equipment Training (NET)	D	PM MTS	Chief of Installation (COI) Installation Point(s) of Contact Contractor Personnel MACOM Representative(s) Functional Proponent Representative(s)

### 9.6-2

Monitorship	D+10	PM MTS	Installation Point(s) of
-------------	------	--------	--------------------------

			Contact Contractor Personnel MACOM Representative(s) Functional Proponent Representative(s)
System Acceptance/Extension Completed	D+15	PM MTS	Installation Point(s) of Contact Contractor Personnel MACOM Representative(s) Functional Proponent Representative(s)

Table 9.6-3 Fielding Sequence of Events (Post-Extension Phase)

EVENT	EVENT DURATION	RESPONSIBILITY	PARTICIPANTS
Post-Extension Visits (as required)	D+60	PM MTS	Installation Point(s) of Contact Contractor Personnel MACOM Representative(s) Functional Proponent Representative(s)

9.6.2 Fielding Planning Activities. Prior to a survey message being sent, the PM GCSS-Army fielding authority will schedule meetings with PM MTS, MACOM representative(s), and other team members, as appropriate, to develop a master fielding schedule for surveys and extensions. The schedule will include the sites, dates, and human resources required to field the system. The purpose of these meetings is also to:

a. Establish a baseline schedule that is executable and is synchronized with other STAMIS schedules to avoid conflicts in personnel, funding, etc.,

b. Establish a method of operation for conducting the IS and System Extension (SE), including defining roles and responsibilities of all team members,

c. Develop a baseline MOA/Letter of Understanding (LOU),

d. Review the systems hardware and software baselines, and operational scenario to develop an understanding of the system

e. Review the logistics concept of the system and resolve any supportability issues and,

f. Review and establish funding and human resource support to be provided by all parties.

9.6.2.1 Send Survey Message. The purpose of the survey message is to formally announce to the MACOM (action addressee) and appropriate units, PMs, etc., that an IS will be conducted. The message covers times, dates, places, and a proposed agenda for each day of the IS. In theory, the message should re-confirm previous coordination efforts and deployment schedules done via

9.6-3

telephone conversations, meetings, and other messages relating to fielding events. The survey message is generated using the DINAH-Mite message

generation software package. The IS message is sent 50 days prior to the IS being conducted. The COI is responsible for preparing the message.

9.6.2.2 Installation Survey. The IS is conducted 60-90 days prior to the projected system being completely installed and ready for STAMIS software load. The IS documents responsibilities of all parties and identifies the actions which must be completed prior to the extension of the system. These responsibilities, actions, and issues/concerns are documented in a formal MOA or Letter of Understanding (LOU) (for units in USAREUR). The MOA/LOU contains a cover memorandum, general administrative checklist, calendar of events, general fact sheets, drawings of the MTS, and installation/unit issues/concerns. In addition, actions during the IS include the development and preparation of the following:

- a. A calendar of events, to preclude schedule conflicts.
- b. An administrative checklist
- c. Fact sheets for issues such as property accountability
- d. A list of installation issues/concerns
- e. Functional data
- f. Building drawings (for equipment placement)
- g. An installation scenario and schedule
- h. A Bill Of Materials (BOM) to support the installation

9.6.2.2.1 IS Results. The cover memorandum contains a brief synopsis of the IS results, including a highlight of major issues/concerns of all parties, and a signature page. Typically, the installation Chief of Staff or designated representative, COI, Functional Proponent, the MTS representative, and possibly a MACOM representative will sign the MOA/LOU.

9.6.2.2 General Administrative Checklist. The general administrative checklist contains POCs, message addresses, shipping instructions, Military Interdepartmental Purchase Request (MIPR) instructions, extension dates, training classroom data, and a list of applicable general fact sheets.

9.6.2.2.3 Calendar of Events. A calendar of events is also developed which shows the entire extension sequence of events, including Required Delivery Date (RDD), setup, testing, STAMIS software load, training, and monitorship.

9.6.2.2.4 General Fact Sheets. The general fact sheets cover a multitude of issues such as extension team work area requirements, receiving/inventory of equipment, power and communications upgrades, classroom training requirements, etc. The fact sheets normally have a recommendation for some action to be performed by either PO TACMIS or the installation POC. All issues must be followed-up on prior to extension.

9.6.2.2.5 Buildings Drawings. A section of the MOA/LOU will also contain drawings of buildings where equipment will be located, classroom layouts and possibly vendor data sheets on specific equipment components.

#### 9.6-4

9.6.2.2.6 MTS Fact Sheets. The MTS fact sheets document functional issues and may also serve to assist the training team to modify lesson plans based on

data sheets completed by individual units. Unit specific information such as DODAAC, Authorized Stockage List (ASL), etc., may also be collected so that the installation team can prepare (as much as possible) the training database and live database prior to the extension.

9.6.2.2.7 Specific Concerns. The MOA/LOU may also document installation or unit specific concerns in the form of fact sheets. These concerns can vary widely, but could include training requirements, lack of funds for upgrades, potential schedule conflicts, and lack of sufficient personnel to operate the system. All issues must be "tracked" for status and resolved prior to extension.

9.6.2.2.8 Issue Resolution. The fielding COI will strive to resolve as many issues as possible during the IS, such that an adequate plan for a successful extension is completed, i.e., the MOA/LOU. However, some issues will be beyond the scope of the team members and will need to be forwarded up through management.

9.6.2.2.9 Briefings. Throughout the course of the IS, briefings are provided to various installation chain of command levels. All required briefings will be coordinated between the installation and the MTS representatives. The MTS Team Chief will conduct the following briefings:

a. Executive Briefing to the Chief of Staff, or his designated representative, and his staff. This briefing will inform the commander of the events planned for installing MTS on his installation, and offer full assistance during the transition to the MTS.

b. Functional Briefing to the Organization Commanders and their immediate staffs. This briefing will address all actions required by the installation prior to and during the extension of the MTS.

c. Exit Briefing to the Chief of Staff and his staff on the results of the IS. All items affecting the extension must be identified and resolved prior to the extension.

9.6.3 Equipment. Following the IS, the COI will return with the signed MOA. If necessary, the bill of materials will be developed in coordination with PM MTS. The COI will coordinate the bill of materials and forward the requirements to PM MTS.

#### 9.6.4 Extension

9.6.4.1 Equipment Receipt, Inventory, Installation, Test. Approximately 3 days prior to the projected date for system being completely installed, the Extension team will arrive on site to receive, inventory, install, and test the equipment. The team, consisting of the TACMIS COI, and/or Contractor Personnel, will set up all equipment, perform any required tests and diagnostics, and may configure the equipment for acceptance. If equipment is defective, repair persons will be called in to repair/replace components, as necessary. Depending upon the equipment and contractual agreements, these repairs are usually covered under the manufacturers warranty. The DD Forms 250, 1155, or 3161 may also be signed over to the installation Property Book

Officer (PBO) and/or to the individual unit PBO at this time. The classrooms are also readied at this time including setup and testing of the equipment and communications lines as required. As soon as the COI, and other technical

personnel are satisfied that the equipment is operational, the equipment is turned over to functional/technical personnel for installation and training.

9.6.4.2 System Turnover. The COI should remain on-site during this period to ensure that no hardware/communication/power related errors occur during the install. The COI, and other hardware support personnel leave the site only when all parties are satisfied that the system is ready for functional training.

9.6.4.3 Training. During this period, the functional training team arrives to train the end users on the MTS system. The NET training will include end user/operator training using the system hardware being fielded to that site.

9.6.4.3.1 NET Training. This training will be instructor led and provide the end user/operator/supervisor subject matter contents which will include preparing equipment for operation, system security, communications and courses such as:

9.6.4.3.1.1 Operator. Two versions of operator training will be developed, one for the fixed (control station) operator and one for the mobile operator (vehicle mounted and handheld). This course provides instructions to train the skills and knowledge necessary to operate the entire system and perform unit level maintenance tasks; and set up, activate, check out, operate and maintain the equipment. Operation of the tutorial will be included in the training.

9.6.4.3.1.2 Supervisor/Manager. System supervisors and managers will be provided training required to manage the system. This training includes a comprehensive overview of how MTS operates as a system, setting file parameters, an overview of the operating system commands that facilitate system management, security, and other functions not designed as operator tasks. In addition, this course will highlight tasks applicable for supervisors and managers to create, access and use daily and monthly management reports. The multimedia training for supervisor / managers will identify tasks and the sequence in which they must be accomplished by the operator. The supervisor / manager will have access to the operator embedded training at all times for management purposes. MTS input, system information management, and decision support aids will be included in the embedded training. Documentation will be developed with instructions explaining how to accomplish this training.

9.6.4.3.1.3 System Support. This course will be primarily designed to support the Combat Service Support Automation Management Office (CSSAMO) personnel in supporting and sustaining the system. Subjects will include a software and hardware overview, upgrading software and hardware, activating and deactivating users, installation of maps and communications architecture and equipment.

9.6.4.3.1.4 System/Database Administrator. System/Database Administrator Support and system maintenance services will be provided by contract support. Training materials will not be developed for these functions.

9.6.4.4 Monitorship. After training is completed, a monitorship period is normally arranged for the installation. During this period, a few members of the training team remain behind to provide on-site help to users of the new

#### 9.6-6

system. This may include hands on re-training and/or help desk type assistance by telephone. This monitorship is supposed to ease the end users and installation into transitioning to the new system. Once the monitorship period is over, the units are expected to normally provide follow-on training

to new personnel, rely on centralized telephonic help-desk for functional problems, and/or organic support from installation resources.

9.6.5 Extension Complete. Following monitorship, an Executive out-brief with formal acceptance of the system may be scheduled by the functional training team.

APPENDIX 9.7  
COMPONENTS OF END ITEM LIST

## 9.7 COEI Lists

9.7.1 COEI. These items are COEI, but may be removed and separately packaged for transportation or shipment. As COEI, these items must be with the end item whenever it is issued or transferred between property accounts.

9.7.2 MTS COEI List. Table 9.7-1 outlines the COMPUTER SET, DIGITAL: AN/UYQ-90 (MTS CONFIG) hardware configuration COEI.

Table 9.7-1. COMPUTER SET, DIGITAL: AN/UYQ-90(V)3  
(MTS CONTROL STATION CONFIG) Hardware Configuration Components of End Item Listing

ITEM	LIN/NSN	DESCRIPTION	UM	QTY
1	Z90125	MTS Control Station w/266MX Pentium Processor, 128 MB RAM, 2.5" removable 6GB Hard Disk Drive, Internal CD ROM, 3.5", 1.4 MB Floppy Drive, Type I/II & Type II/III PCMCIA Slot, RS-422 x2 serial ports, RS-232 serial port	EA	1
2	NYA	Printer, Ink Jet, C265	EA	1
3	NYA	Modem, Satellite Hard mounted Transceiver MT 2010, Built-in, Selectable Level of Encryption, 8 Channel GPS, Internal	EA	1

Table 9.7-2. COMPUTER SET, DIGITAL: AN/UYQ-90 (V)2 (MTS MOBILE UNIT, VEHICLE MOUNTED CONFIG) Hardware Configuration Components of End Item Listing

ITEM	LIN/NSN	DESCRIPTION	UM	QTY
1	Z90126	Mobile Unit V2 ruggedized computer, w/6.5" active color display, 5x86 133 Mhz Processor, 64 MB of RAM, 2.5" removable 2 GB Hard Disk Drive, 1xType I/II & 1 Type II/III PCMCIA slot, 2 x RS-422, 1 x RS-232 Serial Port, 640x240.5 VGA, Hinged, detachable PS2 QWERTY keyboard, PS2 Mouse & Serial Port	EA	1
2	NYA	Integrated Back-up Battery/Charger	EA	1
3	NYA	Modem, Satellite Magnetic Mounted Transceiver MT 2010, Built-in, Selectable Level of Encryption, 8 Channel GPS, Internal	EA	1

APPENDIX 9.8  
BASIC ISSUE ITEMS LIST

## 9.8 Basic Issue Items (BII) List

9.8.1. Basic Issue Items. BII are identified as essential items required to be available for operator/crew operation and support of a major end item. BII are authorized for use with a major end item, but are not part of the end item engineering drawing configuration.

Table 9.8-1. COMPUTER SET, DIGITAL: AN/UYQ-90 (V)3 (MTS CONTROL STATION CONFIG) Hardware Configuration Basic Issue Items Listing

ITEM	LIN/NSN	DESCRIPTION	UM	QTY
1	NYA	Battery Spare, Laptop	EA	1
2	NYA	Power Adapter, Laptop	EA	1
3	NYA	Cable 100-foot, with Control Box	EA	1
4	NYA	Port Expander	EA	1
5	NYA	Battery, Spare, Printer	EA	1
6	NYA	Cable, Printer , 10-foot	EA	1
7	NYA	Data Cable (Control Box to Computer)	EA	1
8	NYA	Transit Case	EA	1
9	NYA	Spare Battery, MT 2010-1	EA	1

Table 9.8-2. COMPUTER SET, DIGITAL: AN/UYQ-90 (V)2 (MTS MOBILE UNIT CONFIG, VEHICLE MOUNTED) Hardware Configuration Basic Issue Items Listing

ITEM	LIN/NSN	DESCRIPTION	UM	QTY
1	NYA	Data Cable	EA	1
2	NYA	Power Cable to DC Power	EA	1
3	NYA	Power Adapter, Worldwide	EA	1
4	NYA	Battery Spare, MT 2010-1	EA	1
5	NYA	Transit Case	EA	1
6	NYA	A-kit	EA	1
7	NYA	Magnetic Mount for Transceiver	EA	1

APPENDIX 9.9  
ADDITIONAL AUTHORIZATIONS LIST

## 9.9 Additional Authorizations List.

9.9.1 AAL Items. AAL items are separately authorized. AAL items are not issued as part of the major end item and are not listed on the end item engineering drawings as part of the end item NSN configuration. AAL items do not have to accompany the end item at all times. However, AAL can be mission essential support items.

9.9.2 MTS AAL. MTS AAL is outlined in the following figure.

Table 9.9-1. COMPUTER SET, DIGITAL: AN/UYQ-90 (V)1  
(MTS MOBILE UNIT CONFIG, HAND HELD)  
Hardware Configuration Additional Authorized List

ITEM	LIN/NSN	DESCRIPTION	UM	QTY
1	NYA	Mobile Unit, Handheld (1) HP 680 Palmtop Computer	EA	1
2	NYA	Modem, Satellite	EA	1
3	NYA	Modem to Palmtop Cable	EA	1
4	NYA	PCMCIA/Cable Ass'y (PLGR Connect)	EA	1
5	NYA	Synch Cable	EA	1
6	NYA	Transit Case	EA	1
7	NYA	Transceiver MT 2010, Built-in, Selectable Level of Encryption, 8 Channels GPS, Internal Magnetic Mount for Satellite System	EA	1

APPENDIX 9.10

TRANSPORTABILITY ANALYSIS AND APPROVAL

9.10 Transportability Analysis and Approval

9.10.1 Transportability Requirements/Constraints

a. The responsible party for transporting this system is the user/equipment owner unit.

b. The MTS may be transported either separately from or with the TWV in which it is installed.

9.10.2 Test Requirements/Results. Not applicable.

9.10.3 Interservice Requirements. No Interservice requirements have been identified for the MTS system.

9.10.4 Lifting/Tiedown/Handling Requirements. Not required.

9.10.5 Resource Requirements/Availability. Transit cases will be used to ship or deploy the MTS ADPE when not installed in a host TWV.

9.10.6 Logistic Support Analysis (LSA)/Logistic Support Analysis Record (LSAR) Interface. A LSAR interface is not available to validate or verify transportation or transportability data.

APPENDIX 9.11  
TECHNICAL MANUALS

9.11 MTS Technical Manuals. Table 9.11-1 outlines the MTS Technical Manuals.

Table 9.11-1. MTS Technical Manuals

NUMBER	TITLE
DAAB15-99-D-0014 V.1.5.1	MTS User Manual (24 Mar 00)
72-12000-016	Laptop Computer (Ruggedized) User Manual
501528-1 12/97	PGI Nightingale Ruggedized Computer
Part # F1262-90003	HP Jornada 680/680e Series Handheld PC
TBD	Tracer Link Pro Installation and Operation Manual V.1.5, AVL Application
Part # C2655-90075	HP DeskJet 340 User's Guide
TBD	Serial I/O Card/Ruggedized Serial I/O Card User's Guide
502414-1A	PGI HHC-133, Rugged Computer Terminal User's Manual

APPENDIX 9.12  
RELATED MATERIEL FIELDING PLANS

9.12 Related Materiel Fielding Plans. Not applicable.

APPENDIX 9.13

SAMPLE DATA COLLECTION CONCEPT PAPER

9.13 Sample Data Collection Concept Paper. A sample data collection, as outlined in AR 750-37, is not applicable and was not conducted for the MTS.

APPENDIX 9.14  
CONTRACTOR SUPPORT PLAN

#### 9.14. Contractor Support Plan.

##### 1. GENERAL

###### a. Contract Information

1. Contract Number: DAAB15-99-D-0014
2. Contract Type: ID/IQ FFP
3. Contract Duration and Options: 96 months w/option to extend.
4. Reporting Requirements: Monthly Project Status Reports,  
Quarterly Logistics and Maintenance Report

##### 2. OBJECTIVE

These procedures supplement the Materiel Fielding Plan and provide detailed information how the Contractor Support Team (CST) will provide systems engineering and technical assistance, systems integration engineering services, program management, reporting, configuration management, delivery and coordination of document and training, application performance testing, software maintenance, and development and delivery of developed commercial data in support of the Movement Tracking System. Also includes the integration of COTS hardware/software and interfaces into the Movement Tracking System

##### 3. TECHNICAL TASKS

The CST will provide systems engineering and technical assistance to design, develop, install, integrate, and sustain the Movement Tracking System throughout the development phase of the life cycle. The CST will provide equipment and field support to GCSS-Army, to assist in deploying and sustaining the overall system.

##### 4. SOFTWARE/HARDWARE MAINTENANCE SUPPORT

Provide problem identification procedures for software  
Hardware support through telephone consultation and tracking media  
Provide problem identification procedures for hardware

##### 5. TRAINING AND MANPOWER REQUIREMENTS

- A. Provide two instructor's for each class of 20 students
- B. Provide trainers for MTS training
- C. Provide on-site field engineers

##### 6. DATA COLLECTION AND TRACKING

- A. All Hardware Assets
- B. Warranty Service
- C. Collect failure data on system and subcomponent failures

##### 7. REPORTING REQUIREMENTS

- A. Additional Reporting Requirements
- B. Meeting Attendance
- C. Quarterly Progress Reports
- D. Monthly status reports

APPENDIX 9.15

MTS TRAINING COURSES

9.15 MTS Training Courses. The following table outlines the courses available for the MTS training.

Table 9.15-1 MTS Training Courses

MOS	GRADE	TRAINING (ENLISTED)	LENGTH OF TRAINING
TBD	E3-E9	Operator - Control Station	8 hours
TBD	E3-E9	Operator - Mobile	8 hours
TBD	E7-E9	Supervisor/Manager	8 hours
TBD	E3-E9	System Support	8 hours
		WARRANT OFFICERS	
TBD	W1-W2	Supervisor/Manager	8 hours
		COMMISSIONED OFFICER	
TBD	01-03	Supervisor/Manager	8 hours

APPENDIX 9.16  
EXPENDABLE SUPPLIES

## 9.16 Expendable Supplies

9.16.1 Supplies Requirements. The supporting MOA between the fielding team and the gaining MACOM/installation will detail specific supply requirements to support MTS implementation.

9.16.2 MTS Expendable Supplies. Table 9.16-1 outlines the MTS System expendable supplies.

### 9.16.3 Explanation of Columns

a. Column 1 - Item No. This number is assigned to the entry in the listing and is referenced in the narrative instructions in the operators manual.

b. Column 2 - Level. This column identifies the lowest level of maintenance that requires the listed item.

O - Operator/Unit  
C - Crew/Operator/Unit  
F - Direct Support Maintenance  
D - Depot Support Maintenance

c. Column 3 - NSN/Part Number. This is the NSN or manufacturer's part number assigned to the item.

d. Column 4 - Description. Indicates the name to identify the item.

e. Column 5 - Unit of Measure (U/M). Indicates the measure used in performing the actual maintenance function.

Table 9.16-1. MTS Expendable Supplies (Being Determined)

(1) Item No.	(2) Level	(3) National Stock Number/ Part Number (Cage Code)	(4) Description	(5) U/M
1.	0	/HP1262- 80001(0V213)	Battery, Computer (Jornada 680)	1ea
2.	0	/ESR 1999- 0121(0WY95)	Battery, Modem Satellite Modem (MT 2010-1)	1ea
3.	0	/HHC-133BA(0ZLJ8)	Battery, Computer (PGI HHC-133)	1ea
4.	0	/CS-BA-001(2J622)	Battery, Laptop (MP955)	1ea
5.	0	/C2991A((0V213)	Battery, Printer (HP340CB)	1ea
6.	0	7510-01-358- 5916/HP51625A (0V213)	Color Cartridge, Printer (HP340CB)	1ea
7.	0	7530-00-145-0414 (0V213)	Paper, Computer (HP340CB)	1bx

APPENDIX 9.17  
SOFTWARE BASELINE

## 9.17 Software Baseline

### 9.17.1 Software

a. Upon recognizing that the system is not functioning properly, the unit operator will perform whatever diagnostics or troubleshooting procedures that are authorized. If there is an indication of a software problem, the unit operator will first call the supporting S-6 for assistance in determining if a malfunction is a hardware or software problem. Concurrently, the unit operator will also notify the CSSAMO/IMO regarding the problem. Where the problem exceeds the capability of the S-6 to resolve, the CSSAMO/IMO will be called for assistance in problem resolution.

b. Configuration control is the process where proposed changes to the MTS software baseline are reviewed, evaluated, and approved or disapproved. Configuration control began when the software baselines were formally established. MTS software change requests may be submitted by one of two methods:

- (1) A problem report (DA Form 5005-R).
- (2) A hardware engineering change proposal (DD Form 1692).

9.17.2 MTS Applications and Configuration Software. The MTS software is outlined in the following table.

Table 9.17-1 COMPUTER SET, DIGITAL: AN/UYQ-90 (V)3 (MTS CONTROL STATION CONFIG); COMPUTER SET, DIGITAL: AN/UYQ-90 (V)2 (MTS MOBILE UNIT, VEHICLE MOUNTED CONFIG); and COMPUTER SET, DIGITAL: AN/UYQ-90 (V)1 (MTS MOBILE HAND HELD UNIT CONFIG) Software

IDENTIFICATION	RELEASE	DATE PUT INTO OPERATION
TBD	TBD	TBD

APPENDIX 9.18

CLASSIFIED INFORMATION

## 9.18 Classified Information and Security

9.18.1 Classified Information. Classified information will not be processed on, ported to, or included in data entry on the MTS system.

9.18.2 Security. Applicable security regulations should be consulted for policy regarding security for the MTS. This appendix provides an outline for security requirements based on AR 190-13, AR 380-19 "Information Systems Security", AR 530-2 "Communication Security", and the MTS current security features. The objectives of the MTS Security Appendix is to provide guidelines for processing information which includes, but is not limited to, information which:

- a. Is classified or could jeopardize national defense.
- b. Would compromise individual privacy of US citizens as provided by the Privacy Act of 1974.
- c. Would violate the protection of funds, supplies, and materiel from theft, fraud, misappropriation or misuse.
- d. Would violate proprietary information which is the exclusive property of a civilian corporation on loan from industry to Government or made available to Government for its proper use in evaluating or adjudication of contracts.
- e. Would violate Government-developed privileged information involving the award of contracts.
- f. Would violate information which command considers essential for mission accomplishment.

9.18.3 Physical Security. Physical security planning is critical due to the system's capability, size, and portability.

9.18.3.1 Access to System. Physical security encompasses control of physical access to the MTS, and its data files media (diskettes, tapes, etc.), storage areas, site selection, personnel access during operational/non-operational hours, and visitor controls. The regulatory requirements for physical security are detailed in AR 190-13 and AR 380-19.

9.18.3.2 Physical Security Protection. Physical protection can be provided through a combination of barriers and access control procedures.

9.18.3.2.1 Access to Site. Positive physical controls should be established to prevent unauthorized entry into the computer area and other critical areas which support, or affect, the operations of the MTS.

9.18.3.2.2 Access to Army Standard Information Management System (ASIMS). Authorized MTS control terminals will comply with the ASIMS Network Security Manual, and all other applicable security regulations. The ASIMS Manual may be obtained from:

SBNA RDC Systems Division (Security Officer)  
ASP-VPR, STOP C-175  
Fort Belvoir, VA 22060-5456

9.18.3.2.3 Access to Computer/Data. Data files and media libraries should be restricted to individuals who require access in the performance of their official duties. Such individuals should be identified by name and justified

by "Need to Know" in accordance with installation/unit policies developed by the ADP Systems Security Officer (ADPSSO), or his designated representative.

9.18.3.2.4 Medial Considerations. Floppy diskettes, magnetic tapes, printer ribbons, and carbon paper used for processing and/or storage of classified or sensitive information must be properly handled and controlled. Recommended methods for handling and storage are AR 380 and AR 380-9, Chapter 8, Section III.

9.18.3.2.4.1 Labeling. Floppy diskettes, magnetic tapes, and printer ribbons containing classified and/or sensitive information must be labeled according to the highest classification level of information on it. If it is determined there is no need to retain the information, then it must be degaussed/cleared by a National Security Agency (NSA) approved method. System and Application software and their supportive documentation must also be appropriately labeled and controlled.

9.18.3.2.4.2 Storage. Floppy diskettes, magnetic tapes, and printer ribbons must be stored in accordance with AR 380-5 guidance for the classification level of information contained on the media.

9.18.3.2.4.3 Protection from Erasure/Loss of Data. Floppy diskettes or magnetic tapes should not be placed near any electronic equipment which generates a considerable magnetic field. Erasure or a loss of data integrity could occur.

9.18.3.2.4.4 Disposal, Destruction, and Clearing. Classified and/or sensitive information contained on floppy diskettes, magnetic tapes, and printer ribbons must be properly disposed. See Chapter IX, AR 380-5 for guidance on disposal and destruction. See AR 380-19 for procedures on declassifying and clearing magnetic media.

9.18.3.3 Environment. The effects of natural disasters such as fires and floods must be minimized by the use of detection equipment, extinguishing systems, and tested emergency plans.

9.18.3.4 Power Supply. The power supply should be protected as an integral part of the MTS.

9.18.4 Personnel Security and Surety. The Personnel Security and Surety Program required in AR 380-19 embraces five elements; selection and retention of personnel, security investigation and clearance, security briefing and introduction, maintenance of security standards, and debriefing and termination. Personnel security and surety program implementation is the responsibility of each installation commander.

9.18.5 Hardware Security Features. Chapter 6 of AR 380-19 describes desirable hardware security features.

9.18.6 Software Security Features. AR 380-19 provides guidance for the use of passwords. Refer to Chapter 5 of AR 380-19 for generation and control of passwords and to Annex L for additional criteria.

9.18.7 Emanations Security (TEMPEST). National security policy requires control of compromising emanations when processing sensitive defense information. The MTS is not TEMPEST certified. Users having a requirement to perform classified processing on this system should refer to AR 530-4 Interim Change (IC) 1 for the preparation of a Facility TEMPEST Analysis/Risk Assessment for inclusion with their system accreditation.

9.18.8 Procedural Security. Procedural security, outlined in Chapter 8 of AR 380-19, sets forth the importance of procedural controls in providing adequate control, reducing risks, and countering inherent vulnerabilities. Sufficient security can be accomplished through a combination of physical, personnel, communication, technical, procedural, and software controls.

9.18.9 Accreditation Documentation. Accreditation (see Chapter 3, AR 380-19) is the formal declaration that an ADP system or network provides an acceptable level of protection for processing sensitive data. The accreditation process may vary by level and types of data. The accreditation process requires information gathering, analysis, and formal management review within both the operating and certifying environments. Accreditation is a user responsibility and must be accomplished in accordance with Chapter 3, AR 380-19.

9.18.10 Security References

9.18.10.1 Required

- a. AR 380-5, Information Security
- b. AR 380-19, Automation Security, 1 August 1990

9.18.10.2 Operational

- a. AR 530-2 w/C1, Communication Security
- b. AR 530-4 W/IC1, Control of Compromising Emanations (U)

APPENDIX 9.19

ACRONYMS

9-19 Acronyms

A

AAL	Additional Authorizations List
ADM	Acquisition Decision Memorandum
ADP	Automatic Data Processing
ADPE	Automatic Data Processing Equipment
ADPSSO	ADP Systems Security Officer
AIT	Automatic Identification Technology
AMC	United States Army Materiel Command
AMSS	Army Materiel Status System
AR	Army Regulation
ARA	Assigned Responsible Agency
ASD	Application System Developer
ASI	Associated Skill Identifier
ASIMS	Army Standard Information Management System
ASL	Authorized Stockage List

B

BD	Battlefield Distribution
BII	Basic Issue Items
BIT/BITE	Built-in Test/Built-in Test Equipment
BOI	Basis of Issue
BOIP	Basis of Issue Plan
BOIPFD	Basis of Issue Feeder Data
BOM	Bill Of Materials
BSM	Basic Sustainment Materiel

C

CAO	Customer Assistance Office
CASCOM	United States Army Combined Arms Support Command
CBTDEV	Combat Developer
CCB	Configuration Control Board
CD-ROM	Compact Disk-Read Only Memory
CENTCOM	Central Command
CMDC	COMTECH Mobile Datacom Corporation
CMP	Configuration Management Plan
COEI	Components of End Item
COI	Chief of Installation
CONOPS	Continuity of Operations
CONUS	Continental United States
COOP	Continuity of Operations Plan
COTS	Commercial-Off-The-Shelf
CPU	Central Processing Unit
CRM	Computer Resource Management
CRMP	Computer Resource Management Plan
CS	Combat Support or Contractor Support
CSS	Combat Service Support
CSSAMO	Combat Service Support Automation Management Office
CST	Contractor Support Team
CULT	Common User Logistics Transport
C2	Command and Control

D

DA	Department of the Army
DAMPL	Department of the Army Master Priority List
DARPA	Defense Advance Research Project Agency
DC	Direct Current
DCSLOG	Deputy Chief of Staff, Logistics
DCSOPS	Deputy Chief of Staff, Operations
DMC	Distribution Management Center
DOD	Department of Defense
DODAAC	Department of Defense Activity Address Code
DOD-STD	Department Of Defense Standard
DRAM	Dynamic Random Access Memory
DS	Direct Support
DSN	Defense Systems Network
DSU	Direct Support Unit
DDT	Doctrine and Tactics Training

E

EAC	Echelons Above Corps
ECP	Engineering Change Proposal
EIR	Equipment Improvement Recommendation
EOD	Explosive Ordnance Demolition
ERC	Equipment Readiness Code
ET	Embedded Training
EUM	End User Manual
EUSA	Eighth United States Army

F

FD	Functional Description/Finance Detachment
FOC	Final Operational Capability
FORSCOM	United States Army Forces Command
FP	Functional Proponent
FRA	Forward Repair Activity
FSB	Forward Support Battalion
FSCM	Federal Supply Code for Manufacturers
FST	Finance Support Team
FY	Fiscal Year

G

GCSS-Army	Global Combat Support System - Army
GOSIP	Government Open System Interconnection Profile
GPS	Global Positioning System
GRAM	GPS Receiver Application Module
GS	General Support
GSA	General Services Administration

H

HQ	Headquarters
HQDA	Headquarters, Department of the Army

I

IC	Interim Change
ICP	Interim Change Package
ID/IQ	Indefinite Delivery/Indefinite Quantity
IKP	Instructor/Key Personnel
IKPT	Instructor/Key Personnel Training
ILAP	Integrated Logistics Analysis Program
ILSM	Integrated Logistic Support Manager
ILSP	Integrated Logistics Support Plan
IMMA	Installation Materiel Maintenance Activity
IMDR	Instructional Media Design Report
IMO	Information Management Office
INSCOM	United States Army Intelligence and Security Command
IOC	Initial Operational Capability
IPR	In-Process Review
IS	Installation Survey
ISSA	Installation Supply Support Activity
ITCRA	In-Theater Computer Repair Activity
ITV	In-transit Visibility

J

JRTC	Joint Reserve Training Center
------	-------------------------------

L

LAO	Logistics Assistance Office
LAP	Logistics Assistance Program
LAR	Logistics Assistance Representative
LIN	Line Item Number
LOTS	Logistics Over-the-Shore
LOU	Letter of Understanding
LOGSA	Logistics Support Agency
LRU	Line Replaceable Unit
LSA	Logistic Support Analysis
LSAR	Logistic Support Analysis Record
LSE	Logistics Support Element

M

MA	Mortuary Affairs
MAC	Maintenance Allocation Chart
MACOM	Major Army Command
MAISRC	Major Automated Information System Review Council
MANPRINT	Manpower and Integration
MATDEV	Materiel Developer
MEDCOM	Medical Command
MB	Megabyte
MCA	Movement Control Agency
MCB	Movement Control Battalion
MCT	Movement Control Team
MFA	Materiel Fielding Agreement
MFP	Materiel Fielding Plan
MHz	Megahertz
MICOM	U.S. Army Missile Command
MIL-STD	Military Standard
MIPR	Military Interdepartmental Purchase Request
MIS	Management Information System
MMC	Materiel Management Center

MNS	Mission Needs Statement
MOA	Memorandum of Agreement
MOI	Memorandum of Instruction
MOPP-IV	Mission Oriented Protective Posture
MOS	Military Occupational Specialty
MOU	Memorandum of Understanding
MRL	Materiel Requirements List
MRT	Movement Regulatory Teams
MSC	Major Subordinate Commands
MSP	Mission Support Plan
MSR	Major Supply Route
MTL	Master Task List
MTS	Movement Tracking System
MTBF	Mean Time Between Failure
MTMC	Military Traffic Management Command

N

NCO	Noncommissioned Officer
NDI	Non-developmental Item
NEOF	No Evidence of Failure
NET	New Equipment Training
NGB	National Guard Bureau
NSA	National Security Agency
NSN	National Stock Number
NTC	National Training Center
NYA	Not Yet Assigned

O

OCONUS	Outside Continental United States
OEM	Original Equipment Manufacturer
OJT	On-the-Job-Training
OPPM	Outside Period Maintenance
ORD	Operational Requirements Document
ORF	Operational Readiness Float
OT	Operational Test

P

PA	Proponent Agency
PAM	Pamphlet
PBO	Property Book Officer
PDSS	Post Deployment Software Support
PE	Practical Exercise
PEO	Program Executive Office
PLL	Prescribed Load List
PLS-E	Palletized Load System - Enhanced
PM	Program Manager/Project Manager/Product Manager
PMCS	Preventive Maintenance Checks and Services
PMP	Project Management Plan
PLL	Prescribed Load List
PO	Project Officer/Product Officer
POC	Point Of Contact
POI	Program of Instruction
POSIX	Portable Operating System Interface for Computer Environments
PPM	Principle Period of Maintenance
PPO	Principle Period of Operation

Q

QQPRI           Qualitative and Quantitative Personnel Requirements  
                  Information

R

RAN	Return Authorization Number
RAM	Random Access Memory
RDD	Required Delivery Date
ROM	Read Only Memory
RS	Religious Support
RSC	Regional Support Center

S

SAAS-MOD	Standard Army Ammunition System-Modernized
SAMS	Standard Army Maintenance System
SAMS-1	Standard Army Maintenance System - 1
SAMS-2	Standard Army Maintenance System - 2
SARSS	Standard Army Retail Supply System
SARD-ZBA	Secretary Research Development and Acquisition
SCP	Software/System Change Package
SCSI	Serial Computer System Interface
SCX	STAMIS Computer Exchange
SE	Site Extension
SEAT	Systems Extension and Acceptance Team
SF	Standard Form
SIDPERS	Standard Installation/Division Personnel System
SLCRTS	Shower, Laundry and Clothing Repair Teams
SME	Subject Matter Expert
SMMP	System MANPRINT Management Plan
SSA	Supply Support Activity
SSC	Self Service Supply Center
STAMIS	Standard Army Management Information Systems
STRAP	System Training Plan
STTE	Special Tools and Test Equipment

T

TACMIS	Tactical Management Information Systems
TAMMIS	Theater Army Medical Management Information System
TAMMS	The Army Maintenance Management System
TAV	Total Asset Visibility
TC-AIMS II	Transportation Coordinator's-Automated Information for Movements System II
TDA	Table of Distribution and Allowance
TEMP	Test and Evaluation Master Plan
TEMPEST	Emanations Security
TM	Technical Manual
TMDE	Test, Measurement, and Diagnostic Equipment
TMIP-A	Theater Medical Information Program-Army
TOE	Table of Organization and Equipment
TOPNS	Tactical Operations
TP	Training Plan
TPF	Total Package Fielding
TSC	Theater Support Command
TSM	Task Selection Matrix
TSR	Training Support Requirement
TRADOC	United States Army Training and Doctrine Command
TROSCOM	United States Army Troop Support Command
TWV	Tactical Wheeled Vehicle
TYAD	Tobyhanna Army Depot

U

UIC	Unit Identification Code
ULLS	Unit Level Logistics System
UM	User Manual
U/M	Unit of Measure
UMT	Unit Ministry Team
UPS	Uninterrupted Power Supply
U.S.	United States
USAISC	United States Army Information Systems Command
USAISEC	United States Army Information Systems Engineering Command
USAISEC-EUR	United States Army Information Systems Engineering Command - Europe
USAISEC-PAC	United States Army Information Systems Engineering Command - Pacific
USAISSC	U.S. Army Information Systems Software Center
USAISSDCL	United States Army Information Systems Software Development Center - Ft. Lee, VA
USARC	United States Army, Europe
USAREUR	United States Army, Europe
USARPAC	United States Army, Pacific
USARSO	United States Army, South
USASIGCEN	United States Army Signal Center
USASOC	United States Army Special Operations
USEUCOM	United States European Command
USMA	United States Military Academy
USSC	United States Space Command
USSTRATCOM	United States Strategic Command

V

VM	Velocity Management
----	---------------------

W

WARCO	Warranty Coordinator
WRAP	Warfighting Rapid Acquisition Program

APPENDIX 9.20

MAINTENANCE CONTINGENCY OPERATIONS

**9.20 Maintenance Contingency Operations.** TACMIS will provide a rapidly deployable FRA to provide maintenance essential materials, and increased flexible combat service support of COTS/NDI ADPE in support of deployed U.S. Forces.

**9.20.1 Concept of Operations.** The FRA will be established as an In-Theater Computer Repair Activity (ITCRA) to meet deployment requirements. The objective of the ITCRA is to reduce the logistics delay time by minimizing the evacuation of TACMIS systems from the theater for repair. This will reduce the time and distance between point of failure and point of repair. The ITCRA will interface with the theater command structure to resolve COTS/NDI ADPE issues and problems. This capability will be offered to assist the theater in repair of all other COTS systems on a reimbursable basis.

**9.20.2 Maintenance Operations**

a. PO TACMIS has three 36 foot vans and three S-280 shelters prepositioned at Tobyhanna Army Depot, Tobyhanna, PA. The combination of vans and shelters gives TACMIS the capability to provide maintenance in four theaters of operation simultaneously. The ITCRA can be deployed as a standalone configuration, or as part of a Logistic Support Element (LSE). The ITCRA will be configured in one of the configurations as follows:

(1) A 36 foot van configured with workstations, small parts storage, and large parts storage.

(2) Three S-280 shelters: a small parts storage shelter, a large parts storage shelter, and a repair/workshop shelter.

b. Operations will include repair of TACMIS COTS/NDI ADPE systems, repair of LRUs and SRUs, modules, and components, in addition to providing a capability to determine source of repair and disposition of returns (in-theater or retrograde out of theater). Operations may also include repair of all other COTS systems on a reimbursable basis.

APPENDIX 9.21  
FIELDING SCHEDULE

9.21 Fielding Schedule. The fielding schedule is in the process of being determined.

Table 9.21-1. Fielding Schedule (TBD)

LOCATION	DODAAC	UIC	STAMIS TYPE	ACTION	STAR T	END
4 <sup>th</sup> ID, Ft. Hood, TX						
1 <sup>st</sup> Cavalry DIV, Ft. Hood, TX						
3 <sup>rd</sup> ACR, Ft. Carson, CO						
III Corps, Ft. Hood, TX						
82 <sup>nd</sup> ABN DIV, Ft. Bragg, NC						
101 <sup>st</sup> ABN DIV, Ft. Campbell, KY						
2 <sup>nd</sup> ACR, Ft. Polk, LA						
XVIII Airborne Corps, Ft. Bragg, NC						
3 <sup>rd</sup> ID, Ft. Stewart, GA						
10 <sup>th</sup> Mountain DIV, Ft. Drum, NY						
25 <sup>th</sup> ID, Schofield Barracks, HI						
1 <sup>st</sup> ID, USAREUR						
1 <sup>st</sup> AD, USAREUR						
V Corps, USAREUR						
2 <sup>nd</sup> ID, EUSA						
11 <sup>th</sup> ACR, Ft. Irwin, CA						
I Corps, Ft. Lewis , WA						